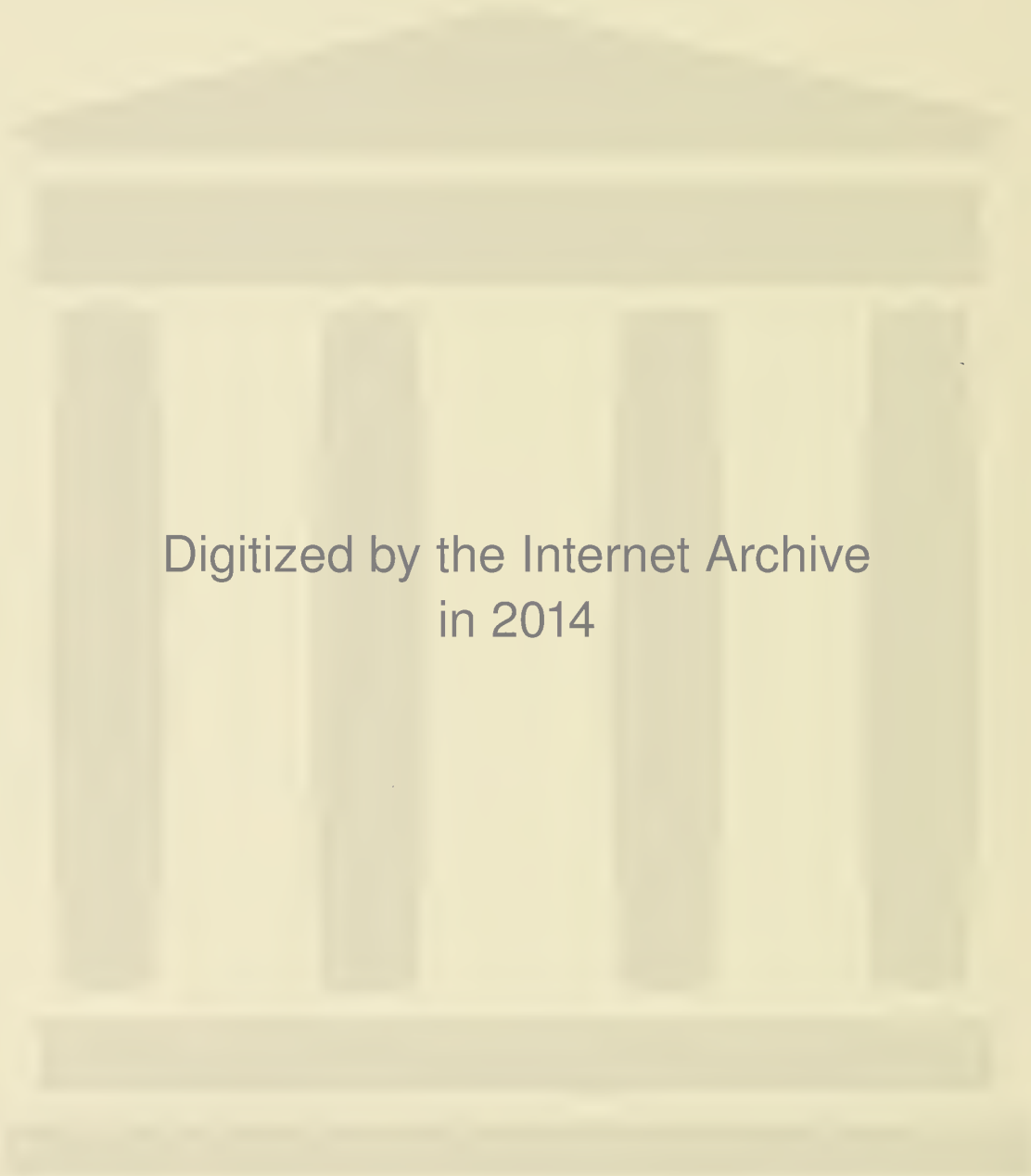
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THE

Railway and Marine World

With which are incorporated The Western World and The Railway and Shipping World, Established 1890

Devoted to Steam and Electric Railway, Marine, Grain Elevator, Express, Telegraph, Telephone and Contractors' interests

OLD SERIES, No. 177.
NEW SERIES, No. 95.

TORONTO, CANADA, JANUARY, 1906,

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The Victorian State Railways.

In connection with suggestions which have been made in the daily papers as to the future of the Intercolonial Ry., whether it should be managed by a commission appointed by the Government, or leased to some railway company, the report of the Victorian Railways, which are managed by a Commission, is of considerable interest and importance. The Commission consists of three members, Thos. Tait, formerly Manager of Transportation, C.P.R., being chairman. The present Commissioners were appointed in 1902, and the report for the year ended June 30 deals with the second full year which they have had control of the lines. The Commission manages 3,725.16 miles of main tracks, and 552.59 miles of sidings, including 3,082.04 miles of single track, 303.98 miles of double track, 2.46 miles of three track line, 2.22 miles of four track line, and 3.15 miles of six track line. With the exception of 81.60 miles of 2 ft. 6 in. gauge, the track is all of 5 ft. 3 in. The gross revenue was £3,582,265 12s. 1d., an increase of £144,124 14s. 11d. over 1903-04; the working expenses showed an increase of £68,826 14s. 9d., and the net revenue amounted to £1,711,127 15s. 11d., an increase of £75,298 0s. 2d. The special expenditures and charges in reduction of extraordinary liabilities taken over by the Commissioners July 1, 1903, amounted to £248,485 7s. 10d., an increase of £128,929 18s. 11d. over 1904, leaving a balance of net revenue of £1,462,642 8s. 1d. After meeting the interest charges and expenses there remained a balance of £648 8s. 1d. of a surplus which has been credited to the consolidated revenue, against a surplus of £519 6s. 10d. for the year 1903-04. The figures contained in the report show a reduction in total train mileage of 2,261,579 miles, equal to 20%, as compared with the year 1901-02 (the year with the largest gross revenue prior to the present administration), notwithstanding that the gross revenue was 6.4% more than in that year. Of this reduction 995,696 miles were in freight train service and 723,563 miles in mixed train service. The total number of passengers carried was 59,702,050, and 3,628,237 tons of freight were carried against 54,282,003 passengers and 3,439,203 tons carried in 1903-04. The increased freight traffic was handled by increasing the average tonnage of the trains hauled, the increase being 42% as compared with 1901-02. The gross revenue shows an increase of $1,043,521 compared with 1901-02, and there is a decrease in the working expenses of $874,720, in comparison with the same year. The gross revenue per train mile was 7s. 11.28d., the highest since 1877. The net revenue is the largest yet earned, being $366,450 more than for the first year of the present administration, and $1,638,251 more than for any year prior thereto. The net revenue per mile of railway is the highest for 16 years, and per train mile the highest for 26 years, while the percentage of working expenses per mile of gross revenue, 56.23%, is the lowest since 1879. The interest charges on the railway debt were paid in full this, as well as last fiscal year, and in addition $1,791,133 has been applied during the last two years towards the reduction of extraordinary liabilities taken over by the Commissioners, July 1, 1903, as well as $559,666 repaid to the State Treasury on account of loan funds advanced by the Government to the railways for the purchase of stores prior to the present administration. Along with these agreeable improvements has gone a corresponding improvement in the conditions of the working staff, which are in every respect more favorable now than ever before. The improved condition of the railways has not been brought about by any reduction in the wages of employes, but, on the other hand, increases have been granted in recognition of good service equivalent to more than $135,000 per annum.

HUGH A. ALLAN,
President of the Shipping Federation of Canada.

The Melbourne Age, in referring to the report, points out that last year's total revenue was a record, exceeding £3,500,000 for the first time in the history of the department. While this was mainly due to the prosperity prevailing, it does not in itself give proof of the reform at work in the railways. In the details of the report the evidence of sound business control is abundant. Particular mention is made of the introduction of diagrams to represent the rise and fall of the figures from year to year, "typical of the advent of much needed enlightenment at the head of our railway management." The line for net revenue, which since 1890 had fallen below the amount required for interest charges, expressing thus the loss of £1,000 a day, has for the last two years shot up against the interest curve. The deficit has been wiped out and converted into a small profit by keeping a vigorous grip on the working expenses. The article further points out that £500,000 more revenue was earned than two years ago and with 2,000 or less train miles, by preventing the despatching of large numbers of small and almost empty freight trains over all the lines. The doing away with deficits brought about by this system was the first task of the Commissioners, who have now to grapple with the problem of reducing the heavy freights at present charged.

Two years ago the Commission undertook the construction of locomotives at its shops at Newport, and about a year ago a Royal Commission was appointed to report on the actual cost of building locomotives at these shops as compared with the actual cost of manufacture at private shops at Ballarat, at which place a large number of locomotives for the State railways had been purchased in the past. The matter was gone into very exhaustively and a report was issued showing that there was a considerable difference in the cost price of the locomotives in favor of the Newport shops. A specific instance is given in connection with the construction of 10 standard 10-wheel locomotives, which cost at the State's Newport shops £3,364 each, while five subsequently built at the Ballarat Company's shops cost £4,402 each.

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TORONTO, CANADA, JANUARY, 1906.

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NOTICE.—The British Columbia Southern Railway Company will apply to the Parliament of Canada, at its next session, for an Act extending the time for the commencement and completion of the railway from Fort Steele to Golden in British Columbia and branches therefrom, and also branch lines from the company's main line, which the company has been duly authorized to construct, and for other purposes.

H. C. OSWALD,
Secretary.

Dated 30th November, 1905.

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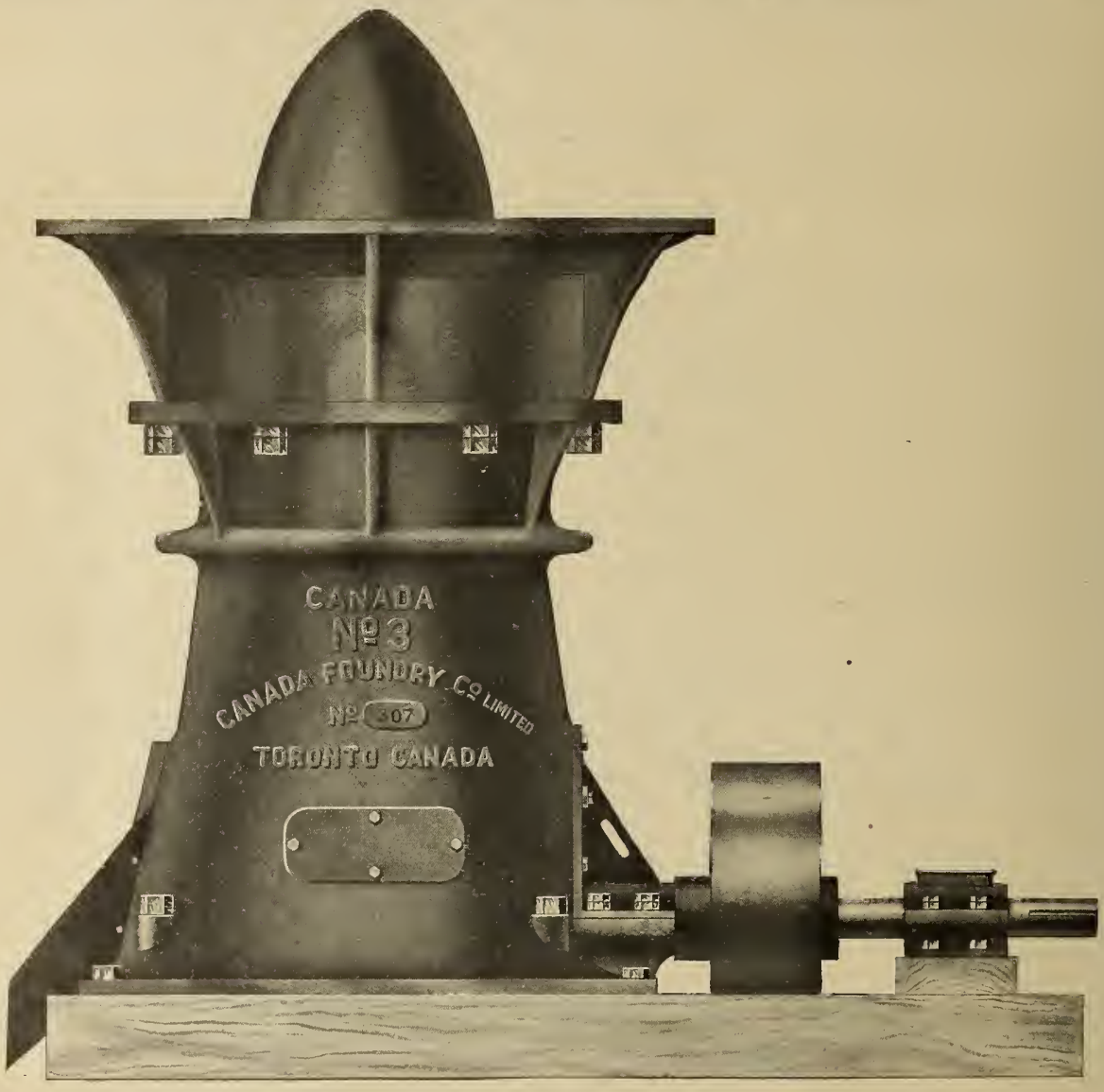

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G.T.R. SEMI-ANNUAL MEETING.

The President, Sir C. Rivers Wilson, in moving the adoption of the report published in our Nov. issue and the declaration of the dividends recommended therein, at the recent annual meeting, said:

The retrospect of the operations during the six months offers a pleasant contrast with that of the corresponding half-year of 1904. Since then the company have entirely recovered from the set-back experienced at that time, and he thought he might confidently say that in all probability they would be able to show quite as good, if not better, results for the current year than in 1903, which was the best year in the history of the company. He reviewed the figures at length, showing that although about 11% more traffic was carried, the gross receipts only increased a little over 7%. This decrease in the rates, he said, is beyond the control of any one company, and can only be met by improving the capacity of the rolling stock and the facilities for dealing with traffic. The working expenses showed an increase of £27,868, while the proportion they bore to the gross earnings showed a decrease of over 3½%, due mainly to the diminution of £94,267 in conducting transportation, which forcibly illustrated the marked difference in the figures produced when the winter and spring seasons are more or less normal as compared with a period of unusual severity such as was experienced in the early part of 1904. Notwithstanding the large increase in passenger and freight traffic—which necessitated the running of 572,000 additional train miles—there was a decrease of over £50,000 in the cost of fuel for locomotives. In the item of car mileage balance is shown the largest saving of any—about £66,000—resulting from the more favorable season. Under the present method of settling for the interchange of rolling stock with other companies, on the per diem basis, as against the mileage basis formerly prevailing, there is, in addition to the charge of 20c. per day, a penalty accruing after 30 days' detention to a foreign car of $1 a car per day, and in the item of penalty alone the company paid out this year £3,073, and collected £15,605, while in 1904 £33,395 was paid out and £10,010 collected, an adverse balance of £23,385, so that the actual saving on penalties for the six months of 1905 was £35,917. The balance to credit in this item is made up by the quicker movement over the line, and consequent less per diem payments, and is also to some extent due to the additional cars acquired during the latter half of 1903, from which, owing to the severity of the weather in 1904, full benefit was not derived. Although the early part of 1905 was by no means favorable, the contrast with 1904 was so favorable that the company had been able to carry out the usual work of repairs and renewals of permanent way and buildings, and also to resume the charge against revenue on account of bridge renewal fund, and, in consequence the charges under the various heads naturally show increases; but it will be found that these charges compare very favorably with those of 1903, and show in the aggregate a reduction of £10,000. It was hoped to completely extinguish the charge for bridge renewals in about a year's time, there being now £74,000 to make up. When the whole amount has been expended all the bridges on the main lines will have been put into a condition sufficient to enable them to carry the very heaviest traffic.

"The ultimate result is," proceeded the President, "that there was a surplus on the half-year's working of £285,033, which, added to the balance brought forward of £6,619, makes the total amount available for dividend £291,652, out of which we propose to ask you to authorize the payment of the full dividends for the half-year on the 4% guaranteed and 1st and 2nd preference stocks. The expenditure on capital account during the past six months was again of a very moderate amount, and was incurred principally in connection with the doubling of the track between Hamilton and Sarnia, and for the purchase of land in proximity to the principal points on our system. The amount expended on the double track was £49,078, and it is anticipated that before next winter the whole of the double track on that portion of the line will be completed, except short distances between London and Hyde Park Jct., and Paris and Lynden. I mentioned to you two years ago an arrangement which was being made with the city of Brantford whereby that city was to be brought upon the main line by means of a slight deviation. That has been effected, and on Sept. 30 the first through train on the main line passed through Brantford. The cost of this deviation was partly met by a contribution from the city of Brantford. The amount expended on the purchase of land was £31,827, of which £28,000 was for property in the neighborhood of Montreal, Toronto and London, which it was necessary to acquire in order to facilitate the handling of the traffic. The expenditure on new stations and works for the half-year amounted to £14,708.

"The gross receipts of the G.T. Western Ry. showed an increase of £6,848, which was accompanied by a decrease of £3,436 in working expenses, thus showing an increase in net profits of £10,284. The net revenue charges of that line for the half-year were £76,121, so that there was a net revenue surplus for the half-year of £7,436, from which, as the accounts of this company are made up annually to June 30, there had to be deducted the net revenue deficiency to Dec. 31, 1904, of £4,637, so that the actual surplus of the working for the year was £2,799, and adding to this amount the balance, £634, carried forward from June 30, 1904, there is an amount of £3,433 available for the payment of 1% interest on the second mortgage income bonds for the year to June 30 last, and I hope and believe that that will be materially increased in the near future. When in Canada a few months ago I made a careful inspection of the G.T. Western, and I have again to express how pleased I am with all I saw upon that road, and how wise I think the arrangement was to reorganize the old Chicago and G.T. Ry. Co., and to allow of the double tracking of the line between Port Huron and Chicago. One important feature in connection with that line is the contemplated removal of our locomotive works from Port Huron to Battle Creek, which is about midway between Port Huron and Chicago, a much more convenient position. We have been able to acquire 200 acres of land at Battle Creek for this purpose. Battle Creek was unable to afford us the pecuniary assistance which in other circumstances it might have been willing to tender towards the establishment there of our shops, because, like other municipalities, it has been somewhat extravagant in its expenditure and has exhausted its powers of borrowing, but a number of spirited citizens came forward and bought the necessary land at a cheap rate owing to local arrangements they were able to make, and then handed it over to us at the price they had paid. The consequence is that we shall very shortly be in possession of fine new locomotive works situated in the most convenient position on the road.

The result of the working of the Detroit, Grand Haven and Milwaukee Ry. for the half-year was more satisfactory than for a considerable time, the gross receipts showing an increase of £17,025, and the working expenses an increase of only £7,902, so that there was an increase of net revenue of £9,123 compared with the corresponding period, and consequently there was a reduction of practically that amount in the sum to be provided by the G.T.R. Co. to meet the interest on the bonds. As that line showed a surplus after providing for the interest on its bonds for the half-year ended Dec. 31, 1904, of over £14,000, there is every prospect that the working of the line for the current year will be sufficient to provide for the interest on its bonds without any charge being made upon the G.T.R. Co., which has not been the case since 1886. In connection with the working of these western lines, I may mention that the Detroit and Toledo Shore Line Ry., the acquisition of which by the G.T. Western and the Toledo, St. Louis and Western railways, has fully answered the expectations. In the first year, in consequence of money that had to be spent in improving the line, the earnings were not quite sufficient to pay the interest on the bonds, but since then it has not only been able to earn its charges, but has made sufficient to repay the advances made by the companies, and it is likely to prove in the future, and, indeed, is already proving, a valuable feeder to our system.

"The prospect that lies before us appears to be entirely encouraging. The gross earnings of our system between July 1 and Oct. 7, are £107,000 in excess of the earnings of the corresponding period of last year. The harvests, both in the U.S. and in Canada, are more abundant than they have been at any previous period, and the consequence is, I think, that we may fairly expect in the immediate future a season of considerable prosperity. Looking still further ahead, and after allowing for the vicissitudes of trade and occasional disturbances of the weather, such as we experienced last year, not forgetting also the large expenditures which must always be attendant upon the maintenance and improvement of the road, I think we may be satisfied that there lies before the company in the future an era of assured prosperity. Day by day as the records of the rapid development of the Northwest Provinces of Canada are published, I feel more and more convinced of the sound judgment exercised by the shareholders when they determined to accept the policy of extending the operations of the company into that great fertile country. It is into the very heart of that favored land that the G.T.R., by means of its affiliated and dependent company, the G.T. Pacific, is penetrating under conditions of a most advantageous character. While itself promoting and accelerating the consummation prophesied in a recent speech by the Premier of Canada, the G.T.R. will be in the very foremost rank for securing for itself an ample participation in the rich traffic, both east-borne and west-borne, which will be derived from the cultivation of this vast area and the requirements of its constantly growing population.

"We anticipated, when I first brought this question to you, that the distance to be traversed by the entire line from New Brunswick to the Pacific would be 3,400 miles, and we believed at that time that the eastern portion of the line—that is, from Winnipeg to the Atlantic, which will be constructed by the Government—would be about 1,900 miles. The surveys that have since been made, and which are still in progress, lead to the conclusion that probably that distance will be somewhat less, and it is not expected, from the last advices I have had, that it will be greater than 1,800 miles. On the other hand, careful surveys made on the western portion of the line—that is, our portion—lead us to believe that the original estimate of 1,500 miles may be exceeded by some 250 miles. The computed distance from Winnipeg to Edmonton is 775 miles. From Edmonton west, the eastern slope, that is, the eastern section of the mountains running down into the prairie—561 miles, and the balance of the mountain section, 418 miles, making a total of 1,754 miles. That, of course, is irrespective of the Lake Superior branch, which runs down from the main line

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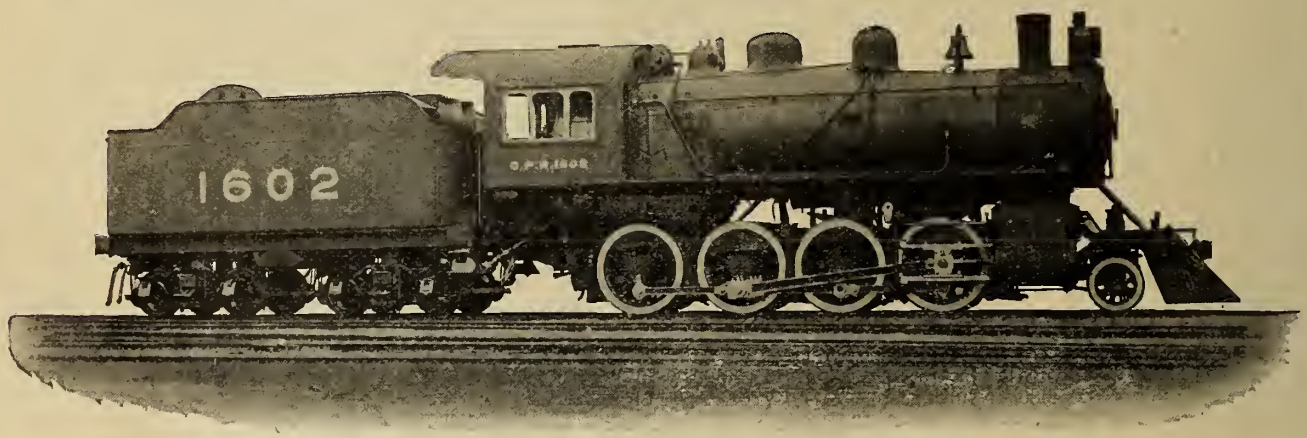
IMPERIAL BANK BUILDING, VICTORIA SQUARE, MONTREAL, CANADA

Builders of Locomotives for all Classes of Service



Structural Steel

—FOR—

BRIDGES, BUILDINGS, ROOF TRUSSES, ETC.

NEW YORK OFFICE:
American Locomotive Company,
111 Broadway

LONDON OFFICE:
Alfred Davis, 26 Victoria Street,
Westminster, S.W.

to Lake Superior, 203 miles. We are chiefly concerned, of course, with the western division from Winnipeg to the Pacific, or, rather, from Lake Superior to the junction with the eastern division and from Winnipeg to the Pacific. That is our own road, that is the road we shall have to construct, and that is the portion of the entire Transcontinental line which will be in all probability abundantly more prolific than the eastern division. Our point of departure is Fort William, at the head of Lake Superior. There we have acquired important terminals. We have obtained, through the co-operation of the Government, 1,600 acres of valuable land; which has hitherto been used as an Indian reserve, adjacent to and abutting upon the lake. We acquire that land upon favorable terms, and you will be glad to hear that the town of Fort William has granted a bonus of $300,000 towards our expenses, and have also agreed to exempt the company from all municipal taxes for 15 years, and has given it certain other valuable and useful privileges. We have within the last few weeks entered into a contract with an important Canadian firm for the building of the road from Fort William up to the intersecting point of junction with the main line, about 250 miles east of Winnipeg, and work will be commenced immediately, and will be pushed forward over the 203 miles with the utmost rapidity. I have received assurances that the Government will also set to work between the point of intersection and Winnipeg, and that the two portions will be completed at about the same time, a matter of the utmost importance to the G.T.R., in order to establish communication between Winnipeg and the Lakes as soon as possible. Starting again from Winnipeg, we shall build as quickly as possible. Operations have been commenced about 55 miles west of Winnipeg at Portage la Prairie. We have concluded a satisfactory contract with another eminent firm of contractors of Winnipeg for the construction of 275 miles to Touchwood Hills. At Winnipeg, which is a point of the very first importance to the Grand Trunk Pacific, we are in negotiation for the securing of the necessary terminals. It is possible that we may be able to conclude an arrangement with some other important corporation, and have a union station; if not, we shall proceed independently. The thing will be settled in the course of a few weeks, and our officers will take care to see that the best possible arrangements are made. Winnipeg is the most important point for our company. It has become within an incredibly short space of time the third city as regards population in Canada. Passing on and crossing the Prairie, we shall. I hope in a very reasonable time, reach Edmonton, and I think we may predict for Edmonton almost as great a future as that which is certain to come to Winnipeg. I believe Winnipeg and Edmonton will be the two great cities of the west. Negotiations are in progress by our officers for obtaining the necessary terminals, but nothing has been settled. Passing over the mountain section, we arrive at the Pacific. I do not think it has been publicly announced yet that the site for the terminus of the line is the island of Kai-En, about 25 miles south of Port Simpson, which was spoken of originally as the possible terminus. Our officers have succeeded already in acquiring upon favorable terms Crown lands amounting to 10,000 acres at that port, and no doubt the time will come when it will rival in importance some of the most important ports of the Pacific. There is one matter I might mention, to show under what favorable conditions we shall make this road. In the days of the construction of the earlier American and Canadian railways, the policy was to push the road through from one point to another as quickly as possible without very much regard for the gradients, with the result that large sums had to be afterwards spent upon the betterment of the road. We have determined to adopt another policy, and to make the road as perfect as it possibly can be made from the very commencement. It has been determined that on the prairie section the maximum gradients shall be 4-10ths of 1%, and over the mountain section not exceeding 1%. The consequence will be that we shall not be perpetually coming to our shareholders and asking them to vote money to reduce the gradients. A contract has been entered into with the Canada Car Co., which has lately been established close to the G.T.R. near Montreal, for the supply of the car equipment of the new line. The contract is for 12,000 freight cars and 250 passenger cars, the delivery of which will begin next year, and will be spread over the five subsequent years; the total cost will be something like $10,000,000, or £2,000,000. Considering that only two-and-a-half years have elapsed since I brought this project before you, and that the legislation connected with it was completed only in July last, I think you will agree that a very considerable amount of work has been done in the period. No less than 9,300 miles have been surveyed. The whole of the financial arrangements have been concluded, and the whole of the money has been secured, for the building of the Lake Superior branch and the prairie section. Contracts have been let, and work is actually in progress, for the construction of the road. These are remarkable results to have been achieved in so short a period, and I think your gratitude is due especially to Mr. Hays and to his extremely able lieutenant, Mr. Morse."

A. W. Smithers seconded the motion and some discussion followed.

The President, replying to questions, said: "When the present board took office, G.T.R. ordinary shares were quoted at something like £4, and to-day they are not far from £25, and have even been higher; therefore, I do not think there is much to complain of on that score. I do not know what the future has in store for us, but I take a much more lively and hopeful view of the prospects likely to accrue to us from our connection with this new undertaking than some shareholders, and I believe if anything can lead to the earning of dividends on ordinary shares, it will be owing to our connection with that enterprise in the Northwest." Referring to the retirement of Lord Welby, Mr. Clutton-Brock, and Col. Firebrace from the directorate of the G.T. Pacific, the President said, "an arrangement has been made that all G.T.R. directors shall pass through the directorate of the G.T. Pacific, and shall come and go in rotation, so that every one of the members of the board shall be able to acquaint himself intimately with the affairs of the G.T. Pacific. That being so, Lord Welby, Mr. Clutton-Brock, and Col. Firebrace, who were the first nominees upon the Board, retired at the end of the first year, and three other directors succeeded them. The President and Vice-President—myself and Mr. Smithers—remain ex-officio members of the G.T. Pacific board. The selection of the harbor on the Pacific coast was made by our experts in connection with the Government, and as the result of the most careful exploration of every port, every harbor, every indentation along the coast, and I think you may rest quite satisfied that the place selected is extremely eligible."

The resolutions were unanimously adopted and a vote of thanks was accorded to the directors for their services.

An Order-in-Council has been passed under the terms of the Government Railways Act, approving of rules and regulations for the carriage of baggage on the Intercolonial, and the Prince Edward Island railways.

White Pass and Yukon Ry. Report.

The report of the directors for the year ended June 30, was presented at the annual meeting in London, Eng., recently. The company owns all capital stock of the several local companies, and the results of their operations for their financial year ended Dec. 31, 1904, are incorporated. The report showed that the profit and loss account, after providing for debenture stock and debenture interest and all charges, shows a net profit of £63,256 6s. 2d. After providing for sinking fund instalment and payment of dividends for 1904, there was carried forward from the balance of the profit and loss account at June 30, 1904, £33,040 5s. 3d. Adding to this the net profit for the past year, there is a balance at credit of profit and loss of £96,296 11s. 5d. Out of this £16,002 6s. 2d. was spent in the purchase of the full sinking fund instalment of £16,586 of stock due this year, and an interim dividend of 4s. a share, which absorbed £27,500, was paid on July 15. The directors recommended that a final dividend of 6s. per share, absorbing a further £41,250, be declared, payable Jan. 15, 1906, making 5% for the year, leaving to be carried forward the balance of £11,544 5s. 3d. The directors recorded with regret the death in Feb. last of their colleague, Jos. Price. It had not been thought necessary to fill the vacancy on the board thus caused. The directors who retired by rotation were Hon. S. Carr Glyn and E. Hanson, who, being eligible, offered themselves for re-election. The balance sheet is as follows:—

ASSETS.

Shares, mortgages and debentures at cost of the local railway and navigation companies	£2,374,011	10	10
Balance due from local companies.	95,260	18	8
Cash at bankers and on hand	1,396	1	6
Sinking fund investments and cash	49,320	13	4
Income tax recoverable estimated	3,000	0	0
	£2,522,989	4	4

LIABILITIES.

Share capital issued	£1,375,000	0	0
5% consolidated 1st mortgage bonds	746,702	0	0
6% mortgage debentures navigation bonds)	255,555	0	0
Sundry creditors	114	19	7
Sinking fund	49,320	13	4
Profit and loss account	96,296	11	5
	£2,522,989	4	4

S. H. Graves, President of the local companies, in his report said:—"On the rail division we carried 11,773 passengers and 33,225 tons of revenue freight. The average haul was 87.83 miles per passenger and 105.73 miles per ton of freight, and the average load per car was 10.76 tons. The chief improvements on the railway in 1904 were the building of a section house at Clifton, and a bonded warehouse 32 by 72 ft. on the Dawson wharf. A crane with a lifting capacity of 10 tons was installed on the wharf at Caribou; and an electric light plant, with capacity of 1,000 16-candle power lights, was installed at Skaguay shops, which furnishes light for the shops and station, also for the Broadway station and general offices. The roadbed, rolling stock, shop and other equipment, wharves and everything else connected with the railway, have been kept up in first-class condition and repair. In doing this work, gravel ballast to the extent of 57,826 cubic yards was distributed north of Caribou, and 6,775 new and 550 second-hand sleepers were laid in the main line. Notwithstanding the outlay on this work, the operating expenses of the rail division for 1904 show a decrease of $27,155.42. The rolling stock includes two new passenger coaches built at Skaguay shops and put into service in 1904.

"The company's fleet in 1904 carried 6,849 passengers and 26,066 tons of revenue freight. We operated 13 steamers and eight barges on the river and lakes, and held five steamers in

Street Car Advertising

What One Company Has Done to Place the Business on a Systematic Basis

(From La Patrie, Montreal)

SITTING in a street car and reading the array of handsomely designed advertising that constantly forces itself on the admiring attention of the hundreds of thousands of passengers who daily ride about the city, little does the average person imagine the amount of labor, the large organization, and the capital involved in securing, producing, and taking care of these announcements of the kings of commerce and captains of industry. Not alone the best in Canada, but the best in America are represented in the illustrated business histories that fill the advertising racks of our tramways.

How was all this accomplished? What wizard of the advertising world conceived and accomplished this achievement?

To answer that question a La Patrie representative called on the president of the Canadian Street Car Advertising Company and learned from him something of the history of street car advertising in Canada, for it has a history marked by many failures, the outcome of inexperience and the lack of ability so often displayed in the past to the despair and financial loss of the street car companies.

At one time nearly every street car company in Canada sold the space in its cars direct to the advertiser, but, as advertising had to be sought, it became necessary for the large companies to organize and maintain an advertising department. This mode of conducting the business soon proved to be unprofitable and unsuccessful, besides being the source of constant annoyance to officials, who had other important matters to look after and who were not, as one can readily understand, conversant with the advertising business, which is so foreign to their training and experience. In addition to the financial loss the cars often presented an uninviting appearance. In short, the companies soon realized that the advertising business was not in their line, and, taking advantage of the experience of the street railway companies in England and the United States, leased the privileges to advertising contractors.

While this method was undoubtedly the proper one, success depended largely upon the ability and experience of the contractors. For several years the leases went to various individuals, none of whom were experienced advertising men; and while a certain improvement over the company's own handling of it was noted, it was still far from what it should be.

It was not until Mr W. J. Carrique, one of the most able and aggressive advertising men in Canada, became interested in street car advertising, that the possibility of its being successfully conducted became apparent. His experience made it plain to him that the successful carrying on of the business required the investment of a large amount of capital for the maintenance of an organization competent to conduct the various departments of a modern advertising business.

His first step was the organization of the Canadian Street Car Advertising Company, Limited, of which he is the active president, with offices in Toronto, Montreal and New York, between which he divides his time.

Mr. Carrique is a good organizer, and has surrounded himself with an aggregation of experts at the head of the various departments.

From the first in this enterprise associated with him was Mr. D. M. Coughlin, the editor and founder of Events, whose brilliant political summaries appeared in that journal under the nom-de-plume of the Politician. He is vice-president of the company, and acts as assistant to the president.

Mr. W. Long, for many years with the Central Press Agency of Toronto, a gentleman of marked ability and long experience in the advertising field, is manager of the advertising department of the Toronto office.

Mr. John Elliott, who for a number of years was accountant for the Canadian Rubber Company, recently severed his connection with that company to become financial manager.

M. L. Corrigan, formerly a professor in the Belleville Business College, is secretary of the company.

The publicity department of the New York office is under the management of Mr. J. K. Fraser, a Canadian, whose writings have won him distinction in literary circles. One of the greatest advertising hits that has been made in the past ten years was the Spotless Town street car verses of which he was the author. The leading advertisers of New York recognize Mr. Fraser's genius for producing pithy, original and forceful advertising copy, and he is naturally an indispensable adjunct of the business.

In the art department is employed a staff of the most competent artists whose duties are to originate sketches suitable to the requirements of the various patrons of street car advertising.

The car service department is under the management of Mr. R. A. Johnson, a master of detail. His duties consist chiefly in keeping a record and a diagram of the interior of every street car in Canada. The Advertising Company's inspectors send their monthly reports of the number and location of the cards in every street car in Canada to him for classification and record.

The superintendent of inspectors, Mr. R. J. Caton, makes his headquarters in Toronto. His duties consist chiefly in the distribution of cards to the various cities in Canada, and in seeing that the cards are not only placed in the proper cars, but that there is always a harmony of colors in arrangement.

An advertiser making a contract for the entire system of cars controlled by the company sends his cards either to the Montreal or Toronto office, whence they are distributed to the various cities throughout the Dominion. In each city it is necessary to have a man to place the cards, who is known as a carder, and the company employs about forty men in this capacity.

The superintendent of the carding department is Mr. G. Henry McAdams, of Montreal, and his assistant is Mr. Fred Smith, also of Montreal.

In addition to the above is a staff of advertising solicitors preaching the gospel of street car publicity, and they are constantly in touch with the largest merchants and manufacturers in Canada and the United States. Their duties in visiting the manufacturing centres of Canada and the United States keeps them constantly on the move. They are among the best patrons of the sleeping car service, and have a speaking acquaintance with the porters on all the trunk lines.

From the above it will be readily seen that the Canadian Street Car Advertising Company is the largest and most expensive advertising organization in Canada.

The company's New York offices are on the fourteenth floor of the famous Flatiron building, where the American business of the company is conducted.

As an instance of the impracticability of conducting the business on one line, the history of street car advertising in Montreal might be cited. After the Montreal Street Railway Company was electrified, the first advertising contractor was Mr. A. R. McDonald, who ran the business for four years, and, although his lease had a number of years more to run, it was a losing game, and he succeeded in inducing Mr. W. S. Brown to release him of his contract; and the latter took over the business in 1899, conducting it under the style of the Dominion Railway Advertising Company. Mr. Brown is a member of the estate that owns the John Murphy building and other St. Catherine Street property, and he was able to command the capital necessary to carry on the business until the spring of 1904, when he concluded that he could not continue longer to contribute to the revenue of Montreal's popular traction company and looked about for a suitable person to relieve him of his contract. Mr. Brown states that his books showed a loss of $15,000 from 1899 to the spring of 1904, when the Ambrose Petry Company, of Detroit, took over the lease, and subsequently assigned it to Mr. Carrique, the lessee of nearly every other line in Canada, having realized the impossibility of running the street car advertising in one city without financial loss.

Mr. Carrique is to be congratulated on having made a success of something that has always been looked upon as a difficult and hazardous proposition, but like all successful men in large undertakings, he owes his success to his genius for organization and judgment in the selection and handling of his lieutenants.

reserve. The falling off in passenger traffic was almost entirely in south-bound business. This traffic is usually heavy towards the close of the season, but in 1904 a great many people went from Dawson to the new Tanana district instead of leaving the country for the winter, thus materially reducing our south-bound passenger traffic. Besides this, the discontinuance of the service between Dawson and Eagle, consequent upon the number of other steamers running between those ports on their way to and from Tanana, would account for a considerable portion of the decrease. The chief additions to the fleet during 1904 were the str. Casca and the barge Klondike. The former, purchased cheaply at the close of the season, is a fine boat with engines and boilers duplicates of those on our str. Selkirk. She has good passenger accommodations and being a popular boat on the river cut into our passenger earnings a good deal, hence it was thought best to acquire her when a favorable opportunity occurred. The barge Klondike was built at the Whitehorse shipyards in the spring of 1904 and has nearly twice the carrying capacity of those built in 1903. She has proved the most successful of our barge fleet. The steamers Sybil and Clifford Sifton not being good carriers on light draft of water, were dismantled during 1904 and converted into barges. The Sybil engines were put in the Bonanza King, which boat was short of power for towing large barges. With the Sybil engines she has proved the most economical boat in the fleet for moving cargo, while the hull of the Sybil has proved a good barge. The engines of the Clifford Sifton were put in the Gleaner, which boat was short of power for towing the barges now used in the Atlin traffic, Since being re-engined in this way the Gleaner can now make the trip with a barge in less time and with less fuel than formerly without a barge. Many of the fleet needing heavy repairs and re-equipment after the trying season of 1903, were forced to winter at a great distance from Whitehorse, so that the cost of repairs and fitting out and getting crews and supplies on board was greatly increased. Upwards of $32,000 of unusual expenses were incurred in this way. A largely increased tonnage was moved over the river division during the season in circumstances tending to increase the cost in consequence of low water. In spite of these drawbacks a net saving was effected in the operating expenses of the River division of $67,351.60 as compared with the previous year. The repairs and renewals required for keeping the fleet and property in first-class condition were duly made.

"The mail, passenger, parcel and freight winter stage line service, was carried on as usual between Whitehorse and Dawson by means of four-horse sleighs and four-horse coaches, which made 158 trips during the year 1904 (equivalent to 52,140 miles), carrying 30 tons of mail, 945 passengers, 10½ tons of parcel freight, including gold dust, and 280 tons of ordinary freight, of which, however, 153½ tons were copper ore from the mines near Whitehorse, involving only a short haul. The gross receipts for the mail service year ended June 30, 1904, were $203,748.39 and the operating expenses $152,656.55, leaving, after allowing for reserve and depreciation, a profit of $51,091.84 as against $35,290.45 for the previous year. The equipment on Dec. 31 last was 24 large four-horse sleighs, 3 light sleighs, 15 wheeled coaches and wagons, one break cart, 152 horses, with the necessary harness, etc., all in first-class condition."

The report concluded with some general observations as to the condition of business in the district at the end of 1904, and the prospects for 1905.

The rolling stock of the railway consists of 16 locomotives, 13 passenger coaches, one official car, one combination car, three baggage and express cars, 110 box cars (20 knocked down), 83 flat cars, 43 stock cars (15 knocked down), 12 coal cars, six cabooses, four refrigerators, two rotary snow plows, one each flanger, derrick car, steam shovel, and track pile driver. The fleet comprises 20 steamers, one, the Tasmanian, being sold during 1904; and eight barges.

The report of the auditors gives a good deal of detail information as to the earnings, etc., of the local companies, from which the following facts have been taken:—

EARNINGS.

	Rail.	River.	Total.
Passenger...	$182,194.02	$169,953.75	$342,147.77
Freight.....	763,938.90	522,955.57	1,286,894.47
Mail and express.....	18,856.04	18,149.35	37,005.39
Miscellaneous	26,665.80	26,836.47	53,502.27
	$991,654.76	$737,895.14	$1,729,549.90

EXPENSES.

RAIL DIVISION—		
Maintenance of way and structures.....		$219,357.91
Maintenance of equipment.....		50,274.84
Conducting transportation.....		162,222.04
Conducting transportation, other than running trains.....		32,473.35
General expenses.....		60,334.51
		$524,662.65
Net earnings.....		466,992.11
		$991,654.76
Deductions from net earnings, management and other expenses, depreciation, etc.....		$ 66,326.90
Leaving a balance of.....		400,665.21
as net income for the year ended Dec. 31, 1904.		
RIVER DIVISION—		
Maintenance of fleet.....		$ 40,064.28
Operating expenses, wages, etc.....		290,515.80
Other operating expenses.....		109,442.09
General expenses.....		48,030.03
		$488,052.20
Net earnings.....		249,842.94
		$737,895.14
Deductions from net earnings, management and other expenses, depreciation, etc.....		$103,245.19
Leaving a balance of.....		146,597.75
as net income for year ended Dec. 31, 1904.		
MAIL SERVICE FOR YEAR ENDED JUNE 30, 1904.		
Gross earnings.....		$203,748.39
Operating expenses, etc.....		152,656.55
Net income.....		$ 51,091.84
Total net income.....		$598,354.80
Interest on local companies' mortgages.		256,780.58
		$341,574.22
Balance of undivided net income.....		800.59
Total amount available for dividend on capital of local companies.....		$342,374.81

Passenger rate meetings will be held at the King Edward Hotel, Toronto, as follows:—Niagara Frontier Summer Rate Committee, rate clerks, Jan. 17, at 10 a.m.; the committee Jan. 18 at 11 a.m. Great Lakes and St. Lawrence River Rate Committee Jan. 18 at 2 p.m. International Water Lines Passenger Association Jan. 19.

The Incorporated Construction Co., which was incorporated by the Dominion Parliament July 31, 1891, will apply next session for an act amending its charter by empowering it to construct railways and other works; and for other purposes. The provisional directors named in the act were J. F. Zebley, A. Gallagher, A. A. Kundson, C. D. Jones, J. T. Kirk, D. Purdy, J. Domville; the office was to be at St. John, N.B., or Montreal, or such other place as might be fixed by by-law; and the authorized capital was $1,000,000. The company was authorized to engage in the mining and manufacture of iron and steel and other metals; the building of ships and vessels of all kinds; the manufacture of railway rolling stock and supplies, and equipment for railways and vessels, and dealing in the same; to construct or acquire docks, and wharves, and to construct or acquire street railways or tramways and other franchises, etc.

Alberta Railway and Irrigation Company.

Following are extracts from the first annual report for the nine months ended June 30, presented at the annual meeting in London, Eng., recently:—

The amalgamation of The Alberta Ry. and Coal Co., The Canadian North-West Irrigation Co., The St. Mary's River Ry. Co., and The Lethbridge Land Co., Ltd., took effect Oct. 1, 1904. The accounts for the nine months ended June 30 show the following revenue:.

From colliery, railways, canals, profit on land sales, etc.....		$193,471.66
Deduct interest on 4% prior lien debenture stock.....	$37,428.00	
Deduct interim payment of 1½% on 5% debenture stock on Jan. 1, 1905.....	40,625.00	
Deduct interim payment of 1% on 5% debenture stock on July 1, 1905.....	32,500.00	
Deduct London expenses (exclusive of directors' fees)..	5,862.64	
Deduct final payment of 1½% on 5% debenture stock made Oct. 20, 1905, making 5% per annum for the nine months.....	48,750.00	
		165,165.64
Surplus, subject to a deduction for directors' fees.....		$28,306.02

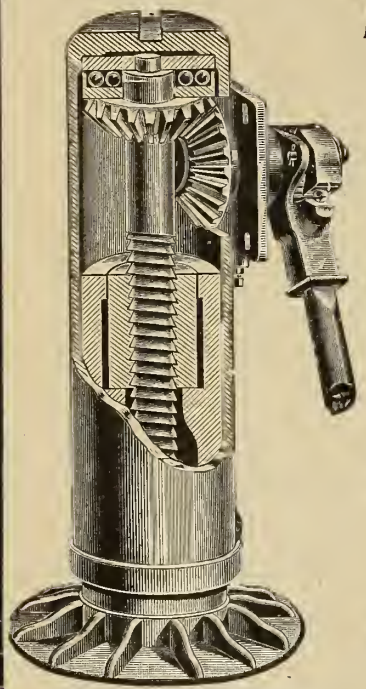
The coal sales amounted to 170,682 tons. The gross earnings of the railways were $127,714.35. This business is very promising by reason of the rapid settlement of the country tributary to the company's railways.

During the nine months the land sales aggregated 13,190 acres and realized $164,138.94, the average price being about $12.50 per acre. These sales comprised 1,482 acres covered by the trust deed for debenture stockholders, and 11,708 acres, formerly the property of the Canadian North-West Irrigation Company, and free from the trust. Of the lands sold 12,497 acres were irrigable and 693 acres non-irrigable. The terms for payment are 1-10 cash and the balance in nine equal annual instalments; interest at 6% per annum being charged on the unpaid purchase money. The estimated net profit resulting from the above sales is $100,426.00, and of this $5,358.69, being the proper proportion of the actual cash received for lands free from the trust, is included in the present revenue account, the balance of $95,067.31 being placed to reserve to be dealt with as the outstanding instalments are received. In the case of the period under review the trustees for the debenture stockholders will become entitled to $9,962.23, part of the sum now placed to reserve, as and when the lands sold which are covered by the trust deed are paid for; and the balance of $85,105.08 for the lands free from the trust will be credited one-half to revenue account and one-half to a lands profit suspense account as and when received. The company owns 943,995 acres of land remaining unsold, of which about 170,000 are irrigable and 773,995 above canal level are non-irrigable and are termed "winter wheat lands." In addition the company owns many town lots in Lethbridge and Raymond. The selling price for irrigable land is from $12 an acre upwards, according to location, and for winter wheat lands from $5 an acre upwards. The receipts from water rentals for the nine months were $10,965.99. It is expected that the receipts under this heading will be considerably increased from year to year as the area under cultivation is extended.

The development of the district is shown by the following circumstances: The cultivated area tributary to the company's railways is now about 70,000 acres, or more than double the acreage of last year. It is estimated that this area has produced in the present season about 1,000,000 bush. of wheat as well as a large quantity of oats and barley. Irrigated lands have yielded large returns and the winter wheat crop has been very satis-

The NORTON BALL-BEARING JACK

A CANADIAN INVENTION
MADE IN CANADA FOR CANADIANS



Sectional View of Norton Jack.

THE BALL-BEARINGS

reduce the friction and increase the power of the Jack.

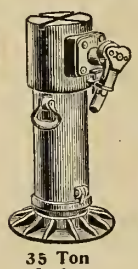
THE GEARS

are cut from solid steel forgings, thereby giving highest efficiency and greatest durability.

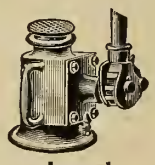
THE SCREW

runs in a Phosphor Bronze Nut and is covered by a sliding sleeve which takes all the side strain, prevents the Screw from bending, and protects the working parts from Grit and Rust.

Foot-Lift Jack.



35 Ton Jack.



Journal Jack.

Made in 50 styles—8 to 70 tons capacity.

Manufactured by

A. O. NORTON,

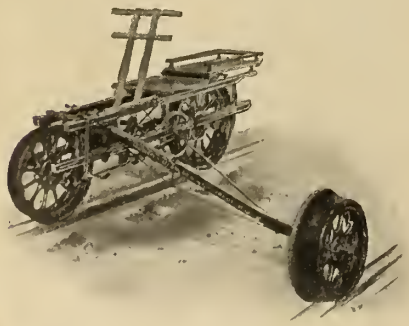
COATICOOK, PROV. QUEBEC.

Stock carried by

W. H. C. MUSSEN & CO., Montreal.

RAILWAY SUPPLIES

We are Canadian Sales Agent for FAIRBANKS-MORSE & CO.



SEND FOR CATALOGUE

Sheffield Motor Cars
Sheffield Hand and Push Cars
Sheffield Velocipede Cars
Sheffield Stand Pipes
Barrett Lifting Jacks

FAIRBANKS-MORSE STEAM PUMPS
FAIRBANKS-MORSE GASOLINE ENGINES
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factory. It is expected that the Knight sugar beet factory will this year treat 35,000 tons of sugar beets, the product of which will be about 3,500 tons of refined sugar. The quality of these beets is unsurpassed in the U.S. or Canada in saccharine matter and purity. This establishment contributes a considerable volume of business to the company's railways and colliery, and is an enterprise which promises satisfactory results to its proprietors. The town of Lethbridge has made satisfactory growth the last year, and its population is now about 4,000.

The St. Mary's branch of the company's railway, 54 miles in length, has been widened to standard gauge. This will save expense in operating and avoid the transfer of through freight at Lethbridge. The cars of connecting railways will be used and a large outlay by the company in the purchase of standard gauge rolling stock will be rendered unnecessary. The company's narrow gauge rails are being sold at satisfactory prices to mining companies, but the rolling stock is difficult of sale, there being but few narrow gauge railways now in operation.

After providing for the expenses of change of gauge of the St. Mary's Branch, above referred to, and extension of the canal system, etc., which on Oct. 31, 1905, will, together, have absorbed about $355,000 of the cash resources of the company, there will remain sufficient working capital for the operating of the company's business. Capital expenditure up to Dec. 31, 1906, will not exceed $180,000. This expenditure will be applied to canals, standard gauge rolling stock and other necessary purposes. The company has upwards of $600,000 of land mortgages, which are easy of sale and available for any outlay that may be required. The canal system now embraces over 150 miles of main canals and laterals, and its extension is not contemplated beyond the requirements for lands for incoming settlers. During the nine months, prior lien debenture stock has been redeemed to the extent of $3,600 in exchange for land, the amount of this stock outstanding being $1,246,400. The trustees held on June 30, 1905, $2,130.96 to be applied to further redemption.

A. M. Nanton, of Osler, Hammond & Nanton, of Winnipeg, has been appointed Managing Director of the company, and from July 1, 1905, has been in full charge of its operations, thus giving the President more time for attention to important interests of the company calculated to bring to it increased business. The directors are much pleased at having been able to affect this arrangement, believing it to be in the best interests of the company. Mr. Nanton is a large holder of the company's securities.

In accordance with the Railway Act of Canada, the directors retire from office, and offer themselves for re-election, viz.:—E. T. Galt, Col. K. R. B. Wodehouse, A. M. Nanton, W. Burdett-Coutts, M.P.; E. S. Clouston, J. H. Dodgson, Jno. Galt, W. M. Ramsay and E Waterhouse. W. S. Ogle & Co., the auditors, retire, and offer themselves for re-appointment.

BALANCE SHEET, JUNE 30, 1905.

LIABILITIES.

To 4% prior lien debenture stock		$1,246,400.00
To 5% debenture stock		3,250,000.00
To common stock		3,250,000.00
To Dominion government		500,000.00
To sundry creditors		205,231.37
To land suspense accounts		95,067.31
To REVENUE ACCOUNT—		
Balance for the nine mths.	$150,181.02	
Less—Interim payment of 1¼% on 5% debenture stock	$40,625	
Further payment of 1% declared June 5, 1905	32,500	
	73,125.00	
		77,056.02
		$8,623,754.70

ASSETS.

PROPERTY ACCOUNT—		
Colliery, railways, lands, canals, etc., cost at Oct. 1, 1904	$7,380,743.98	
Add expenditure on canal extension, change of gauge, etc., during the 9 months	193,818.04	
	$7,574,562.02	
Less cost of land and narrow gauge equipment sold during the nine months	79,505.40	
		$7,495,056.62
Stores on hand		91,006.27
Amounts owing to the company—		
For land	$912,737.67	
Less agreements for sale of land sold with the company's guarantee	154,113.42	
	$758,624.25	
Sundry debtors	74,457.14	
		833,081.39
Cash in banks and offices		204,610.42
		$8,623,754.70

REVENUE ACCOUNT, NINE MONTHS ENDED JUNE 30, 1905.

By net revenue from colliery, railways, canals, land sales, etc	$193,324.56
By interest, transfer fees, etc	147.10
	$193,471.66
To London expenses (exclusive of directors' fees)	$ 5,862.64
To interest on prior lien debenture stock	37,428.00
To balance carried to balance sheet	150,181.02
	$193,471.66

The directors and officers for the current year are:—President, E. T. Galt, Montreal; Vice-President, Col. K. R. B. Wodehouse, London, Eng.; Managing Director, A. M Nanton, Winnipeg; other directors, E. S. Clouston, W. M. Ramsey, Montreal; J. Galt, Winnipeg; W. Burdett-Coutts, M.P.; J. H. Dodgson, E. Waterhouse, London, Eng.

The Board of Railway Commissioners has approved of passenger tariff on the following new lines of the Canadian Northern Ry.:—Wakopa section, on a basis of 3 cents a mile; Clanwilliam branch, west of Clanwilliam to Rossburn, Man., on a basis of 3 cents a mile; and on the main line west of Laughlan to North Battleford, Sask., on a basis of 3½ cents a mile.

From the Toronto Globe, Nov. 29, 1855:—"On Monday next the Great Western Railroad will be opened between Hamilton and this city, and Toronto will for the first time be placed in direct railway communication with the far west. The event is one of no ordinary importance, and ought to be celebrated by our citizens in a manner worthy the occasion. It would be difficult to overrate the advantage which will accrue to Toronto from having the rich commercial area compassed by the Great Western brought to the doors of our merchants, and it is right and politic to mark the event."

The Canadian Freight Association, western lines, which deals with freight inspection and car rental in the territory between Port Arthur, Ont., and Revelstoke, B.C., and south, has as members the C.P.R., Canadian Northern Ry., Qu'Appelle, Long Lake and Saskatchewan Ry,. Red Mountain Ry., Vancouver, Victoria and Eastern Ry. and Navigation Co., Nelson and Fort Sheppard Ry. Its organization is as follows:—President, G. H. Shaw, General Traffic Manager, Canadian Northern Ry; Vice-President, W. B. Lanigan, General Freight Agent, C.P.R. Central Division; Manager and Secretary-Treasurer, H. R. Patriarche; Freight Inspection Committee, Executive Committe, and Audit Board: G. H. Shaw, W. B. Lanigan; Car Rental Committee: J. A. McGregor, A. W. Wilcox, J. P. Driscoll, G. E. Graham, H. R. Patriarche, Chairman. Regular meetings are held at Winnipeg on the first Monday in Feb., May, Sept., and Nov.

Orders by the Railway Commissioners.

The following orders have been issued by the Board of Railway Commissioners:—

No. 745. Oct. 17.—Authorizing the junction of the tracks of the Canadian Northern and the Manitoba and Northwestern railway at Neepawa, Man.

No. 746. Nov. 11.—Approving detail plans for the bridge across the tracks of the Canada Atlantic Ry. by the James Bay Ry.

No. 747. Nov. 2.—Authorizing the laying under the tracks of the G.T.R. between lots 12 and 13, con. 8, Walpole tp., Haldimand county, Ont., of the pipes of the Dominion Natural Gas Co. on terms arranged.

No. 748. Nov. 8.—Authorizing the Toronto, Hamilton and Buffalo Ry. to put into operation the interlocking plant at the Garth St. crossing, Hamilton, Ont.

No. 749. Nov. 4.—Authorizing the Ontario Pipe Line Co. to carry its pipes under the G.T.R. at 10 points in Hamilton, Ont., on terms arranged.

No. 750. Sept. 21.—Authorizing the using of the crossings of the tracks of the British Columbia Electric Ry. by the Vancouver, Westminster and Yukon Ry. at Park Avenue, Vancouver.

No. 751. Nov. 7.—Authorizing the James Bay Ry. to lay its tracks across the Sutton branch of the G.T.R. at rail level in East Gwillimbury, York county, Ont., for the use of construction trains, construction materials and supplies.

No. 752. Nov. 7.—Authorizing the expropriation of certain lands in the township of Southwold, Elgin county, Ont., by the Lake Erie and Detroit River Ry.

No. 753. Nov. 11.—Authorizing the C.P.R. to operate a track crossing the public highway immediately west of Dalhousie Mills station, Telesphore, Que.

No. 754. Oct. 16.—Approving of change in location of the Canadian Northern Ry. station at St. Anns, Man., to a point two miles westward of its present location.

No. 755. Oct. 16.—In the matter of the application of the C.P.R. Co., under the Railway Act, 1903, sec 175, for authority to construct a branch line from its main line at Fort William to the east side of the Maine River. Upon hearing counsel for the company and what was alleged, and the withdrawal of the application, the Board ordered that the same be dismissed with costs against the company, which were fixed at $100, to be paid to the town of Fort William forthwith.

No. 756. Oct. 16.—Dismissing application of the C.P.R. to construct a branch line on the south side of the Kaministiqwia River, Fort William, Ont.

No. 757. Nov. 14.—Extending interim order of Nov. 3, disallowing tariffs C.R.C. no. A33 of the Red Mountain Ry.

No. 758. Nov. 15.—Authorizing the crossing at a grade of the tracks of the C.P.R. by the G.T.R. near Komoka, Ont.

No. 759. Aug. 29.—Authorizing the C.P.R. to cross the tracks of the G.T.R. at rail level near Utopia station, Ont.

No. 760. Aug. 29.—Authorizing the C.P.R. to cross the tracks of the G.T.R. near Coldwater, Ont.

No. 761. Aug. 29.—Authorizing the C.P.R. to cross the tracks of the G.T.R. Penetang branch.

No. 762. Nov. 15.—Authorizing the C.P.R. to construct a temporary over-crossing near Tottenham, Ont., where its line crosses the G.T.R.

No. 763. Nov. 15.—Re complaint of Dominion Millers' Association. See Dec. issue, pg. 591.

No. 764. Nov. 6.—Authorizing the C.P.R. to construct and operate a branch line for 15 years in the township of North Dumfries.

No. 765. Nov. 16.—Authorizing the protection of Main St., Winnipeg, where it is

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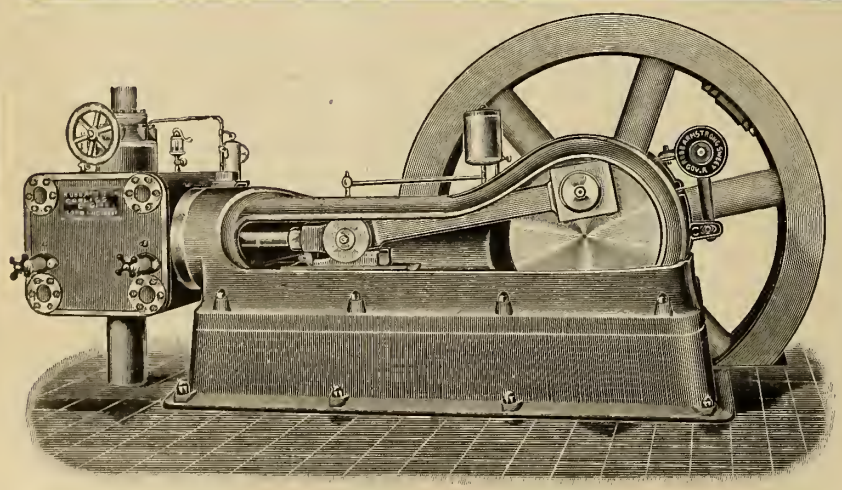

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crossed by the Canadian Northern Ry., by placing watchmen at said point.

No. 766. Re freight on beans. See Dec. issue, pg. 577.

No. 767. Nov. 18.—Ordering the G.T.R. and C.P.R. to file answer to the application of the town of Lindsay within four days.

No. 768. Oct. 17.—Authorizing the protection of Hastings St., Vancouver, by means of gates and a watchman where it is crossed by the C.P.R. and the B.C. Electric Ry.

No. 769. April 14.—Authorizing the Canadian Northern Ry. to use certain lands of the C.P.R. in the north ½ of sec. 30, tp. 6, range 4, west of the 1st meridian, Manitoba.

No. 770. Nov. 8.—Amending order dated Aug. 29, in re application of James Bay Ry. for an undercrossing of G.T.R. tracks.

No. 771. Nov. 21.—Order issued and then cancelled.

No. 772. Nov. 23.—Sanctioning plan of deviation of the G.T.R. in Collingwood, Ont.

No. 773. Nov. 23.—Authorizing the construction of a branch line by the G.T.R. in Montreal crossing Common St. to the Ross property.

No. 774. Nov. 22.—Authorizing the G.T.R. to construct a branch line in Berlin, Ont., to the premises of the Ontario Beet Sugar Co.

No. 775. Nov. 23.—Authorizing the C.P.R. to operate its trains over an additional crossing of the Northern Division of the G.T.R. at Toronto Jct., Ont.

No. 776. Nov. 22.—Authorizing the Light Commissioners of Berlin, Ont., to carry electric light wires over G.T.R. tracks there.

No. 777. Nov. 22.—Authorizing the Corporation of Galt, Ont., to lay sewer pipes under G.T.R. tracks.

No. 778. Nov. 23.—Authorizing the Provincial Natural Gas and Fuel Co., of Ontario, Ltd., to lay pipes under the G.T.R. on lot 21, 4th con., tp. of Humberstone, Co. Welland.

No. 779. Nov. 23.—Authorizing the city of St. Catharines to lay pipes under the G.T.R. in the city.

No. 780. Nov. 23.—Authorizing the G.T.R. to construct a branch line on Walnut St., Collingwood, Ont.

No. 781. Nov. 24.—Authorizing the G.T.R. to cross certain highways in Collingwood, Ont.

No. 782. Nov. 23.—Directing the G.T.R. to place flagmen for the protection of the public at its crossing of College St., Lennoxville, Que.

No. 783. Nov. 24.—Authorizing the C.P.R. to construct a branch line near Highland station to the property of the Canada Sugar Refining Co., Montreal, on a location differing from that mentioned in the order of July 20. The new route includes an undercrossing of the G.T.R., which is to be constructed under the supervision of the G.T.R. engineers.

No. 784. Nov. 14.—Authorizing the township of Cornwall to make certain improvements upon the river Aux Raisins, where it is crossed by the Ottawa and New York Ry.

No. 785. Nov. 27.—Authorizing the James Bay Ry. to construct a bridge across the 3rd concession road, Whitchurch tp., York county, Ont.

No. 786. Sept. 21.—Authorizing the protection of the north road in the municipalities of Burnaby and Coquitlam, B.C., where it is crossed by the Vancouver, Westminster and Yukon Ry.

No. 787. Nov. 27.—Authorizing the city council to lay water pipes under G.T.R. tracks in St. Catharines, Ont.

No. 788. Nov. 27.—Authorizing the Chatham, Wallaceburg and Lake Erie Ry. to open its line for public traffic from Dover St., Chatham, to Wallaceburg, Ont.

No. 789. Nov. 27.—Authorizing the city council to lay water pipes under G.T.R. tracks in St. Catharines, Ont.

No. 790. Nov. 28.—Ordering the G.T.R. and the C.P.R. as lessee of the Lindsay, Bobcaygeon and Pontypool Ry. to interchange traffic at Lindsay. See next column.

No. 791. Nov. 28.—Authorizing the Guelph and Goderich Ry. to construct an overhead crossing of the G.T.R. at Goderich Ont.

No. 792. Nov. 30.—Authorizing the Orford Mountain Ry. to open its line from Kingsbury to Windsor, Que., a distance of 10 miles, for public traffic.

No. 793. Nov. 30.—Amending order of Nov. 28, authorizing the interchange of traffic between the C.P.R. and the G.T.R. at Lindsay, Ont.

No. 794. Dec. 1.—Re water competition in B.C. See next item.

No. 795. Dec. 1.—Authorizing the Ontario Transmission Co., Ltd., to carry power wires over the tracks of the G.T.R., Michigan Central Rd., Canada Southern Ry., Wabash Rd., and Niagara, St. Catharines and Toronto Ry., in the tp. of Stamford, Ont.

No. 796. April 14.—Authorizing the C.P.R. to make certain changes in interlocking plant where the Canadian Northern Ry. tracks cross the C.P.R. tracks at West Fort William. Ont.

No. 797. Nov. 20.—Authorizing the C.P.R. to cross with two aditional tracks Elizabeth St., Toronto Jct., Ont.

No. 798. Dec. 2.—Authorizing the Guelph and Goderich Ry. to use and occupy certain lands of the G.T.R. in Goderich, Ont.

No. 799. Nov. 7.—Authorizing the protection of Greenwoods Ave., Toronto, by means of an electric bell.

No. 800. Dec. 2.—Authorizing the C.P.R. to open for public traffic the portion of its line known as the Wetaskiwin branch extension from Camrose to Daysland, Alberta.

No. 801. Dec. 2.—Amending and approving supplements to Freight Classification. See next item.

Railway Commissioners' Freight Orders.

Nov. 28, 1905.—In the matter of the application of the town of Lindsay, Ont., and the Flavelle Milling Co., for an Order, under secs. 214, 253, and other sections of the Railway Act, 1903, directing the G.T.R. Co., and the C.P.R. Co., as lessees of the Lindsay, Bobcaygeon and Pontypool Ry. Co., and the Lindsay, Bobcaygeon and Pontypool Ry. Co., to make all necessary arrangements and afford to all persons and companies all reasonable and proper facilities for the receiving, forwarding and delivering of traffic upon their several railways, and for the interchange of traffic between the said railways in the town of Lindsay, and for forwarding rolling stock from one of the said railways to the other in the said town and for the return thereof:—Upon hearing the evidence adduced and what was alleged by counsel for applicants and the several companies interested, and upon the report and recommendation of the Chief Traffic Officer of the Board—it is ordered:

1. That the said companies be directed forthwith to afford all persons and companies all reasonable and proper facilities for the receiving, forwarding, and delivering of traffic upon and from their several railways and for the interchange of traffic and the necessary rolling stock therefor between their respective railways in the said town of Lindsay, at and by means of interchange track and connections between the lines of the said companies in Lindsay, and in respect of traffic coming from and going to points in Lindsay. 2. That so far as relates to the switching rates to be charged on such traffic, the said application be adjourned for further evidence and consideration to a day to be hereafter appointed by the Board. 3. That pending such further evidence and consideration and until further order, the following provisions shall apply subject to any order of the Board for the increase or decrease of rates on traffic carried in the meantime, namely:—(a) To and from all tracks and sidings used for the purpose of loading and unloading cars owned or controlled by, or connecting with the lines of the G.T.R. on the east side of the river Scugog, $3 per carload of 40,000 lbs. or less; $4 per carload of over 40,000 lbs. but not over 60,000 lbs.; and $5 per carload of over 60,000 lbs., no extra charge to be made for switching the empty car in the opposite direction. (b) To and from all tracks and sidings used for the purpose of loading and unloading cars owned or controlled by or connecting with the lines of the G.T.R. on the west side of the river Scugog, excepting such sidings adjoining the G.T.R. freight sheds or shed, as may be necessary for the convenient transfer thereto and therefrom of freight ordinarily handled by the G.T.R. employes, $4 per carload of 40,000 lbs. or less; $5 per carload of over 40,000 lbs., but not over 60,000 lbs.; and $6 per carload of over 60,000 lbs.; no extra charge to be made for switching the empty car in the opposite direction. 4. That all other devices, such as free or assisted cartage, or cartage allowances, intended to equalize the facilities of the respective railways for the collection and delivery of freight at or near Lindsay, except such as may be published in the freight tariff of the companies, are prohibited. That joint rates charged for the whole traffic be as provided by order of the Board in case of interchange of traffic at London.

WATER COMPETITION IN BRITISH COLUMBIA.

No. 794. Dec. 1, 1905.—In the matter of the application of the C.P.R. Co., under sec. 262, sub-sec. 4; sec. 274, sub-sec. 4; and sec. 276 of the Railway Act, 1903, for permission to meet on the Pacific coast the competition of independent water carriers not subject to the Railway Act, 1903—it is ordered:

That the company be granted permission to make competitive tariffs for the carriage of freight traffic on any of the roads hereinafter described, namely:—Between any ports on the mainland of British Columbia, between any ports in Vancouver Island or between any port or ports in Vancouver Island and any port or ports on the mainland of B.C., where the transportation is entirely in or on vessels particularized in sec. 276 of the Railway Act, 1903; or between any port or ports in Vancouver Island, and any port or ports on the mainland of B.C., where the transportation is partly over the railway of the company in Vancouver Island, and partly in or on vessels, as aforesaid, the said traffic to include none other than local port to port freight, which might otherwise be handled by exclusively water carriers, not subject to the Railway Act, 1903, and not to include any freight in transit to or from any point or points where the carriage is partly over the company's railway on the mainland; and may act upon and put in operation the said tariffs immediately upon the issue thereof by the said company, before such tariffs have been filed with the Board. That such tariffs shall, forthwith, after the making thereof, be forwarded to and filed with the Board; but the said company shall be exempt from otherwise publishing any of said tariffs, unless otherwise directed by the Board.

SUPPLEMENTS TO FREIGHT CLASSIFICATION.

No. 801, Dec. 2, 1905.—In the matter of the application of the Canadian Freight Association, under sec. 255 of the Railway Act, 1903, for approval of proposed supplements, filed as supplements 5 and 6, to the Canadian Freight Classification no. 12, the said supplements to be consolidated into one, to be known as no. 5. The commodities which have been moved from a lower to a higher class having been published in the Canada Gazette, on Aug. 5 and 12, 1905 (see RAILWAY AND SHIPPING WORLD, Sept., 1905, pg. 419). Upon the report and recommendation of the Chief Traffic Officer, it is ordered that

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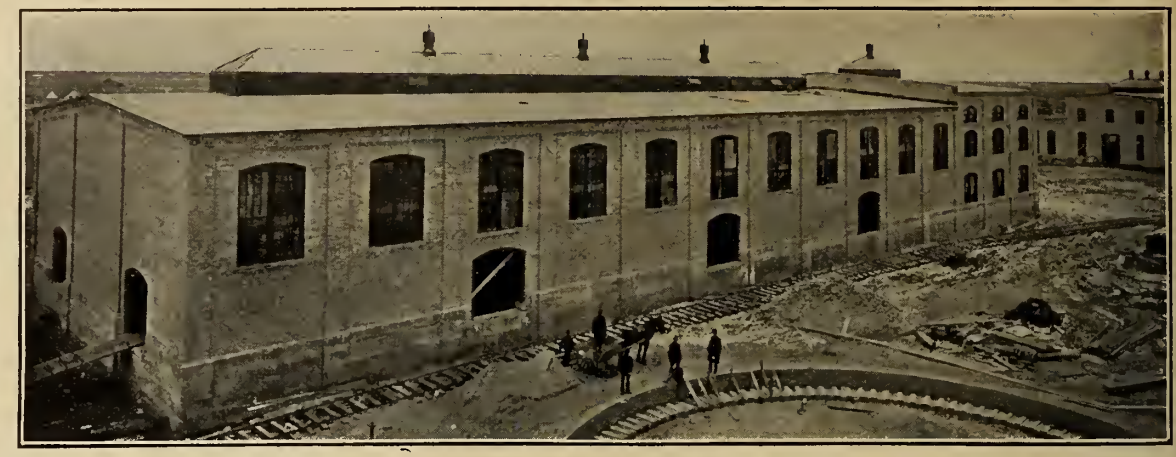

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the changes embodied in the proposed supplements as consolidated are hereby legalized and sanctioned until such time as the Board shall revise, alter, or amend them, subject to the following modifications and exceptions, viz.:—

Supplement 5, page 2, item: "Mixed cars, furniture, wire mattresses and spring beds, o.r., released, minimum 14,000 lbs. per car, 4th class."

Supplement 5, page 4, item: "Amend 'machinery, all kinds, as per above,' to read —erase words (c. l. minimum 20,000 lbs.)" It is ordered that these two items be withdrawn from the said supplement 5, and be held over for further consideration.

Supplement 5, page 3, item: "Iron and steel:—Anchors, anvils and heavy forgings: erase 'Heavy Forgings,' 3-5, and add 'Heavy Forgings, same as Castings.'" Item: Erase "Forgings, heavy, in the rough, 4-5," and add "Forgings, heavy, same as castings."

It is ordered that these two items be amended so as to substitute for the present classification, and for that proposed as aforesaid, the following, namely:—

Forgings, 100 lbs., or over, each, l.c.l. 4 c.l. 5.

Forgings, under 100 lbs. each, same as castings under 100 lbs. each.

The Car Shortage Question.

The Chief Railway Commissioner, A. C. Killam, K.C., gave the following judgment under date of Nov. 27, 1905:—A. A. Wright has addressed to the Board two letters complaining of insufficiency of railway facilities for forwarding grain from ports on Georgian Bay and Lake Huron, and of discrimination in favor of Depot Harbor as against other ports in the allotment of cars for the carriage of grain; and that the C.P.R. Co., at Owen Sound, and the G.T.R. Co., at Midland, Collingwood and Meaford, "virtually refused," except at their own discretion, to receive from lake vessels export grain brought down from Fort William, unless to be forwarded from Georgian Bay elevators after the close of navigation at the port of Montreal. On account of complaints from several parties of shortage of cars and facilities for moving traffic, and of discrimination against their particular interests, the Board directed the Traffic Officer to enquire into the subject, and has had several interim reports from him. It also held a hearing relating particularly to a complaint of the Dominion Millers' Association, alleging unjust discrimination against the traffic in grain from lake ports for various flour mills in Ontario and in favor of traffic in grain for export from Canada. In the latter case it was found by a majority of the Board that the G.T.R. Co. had been discriminating in favor of traffic in grain from these ports for export via Montreal and Portland, and against shipments to millers; and the Board made an order directing that a certain method of distribution of cars be observed at the ports of Meaford, Midland, Collingwood and Point Edward, in cases in which the supply of cars should be insufficient to carry all the traffic offered. The representatives of the Dominion Millers' Association pressed for a further order with regard to the distribution of cars to these various ports, but the Board considered that it was not yet in a position to judge satisfactorily upon the effect of such an order on all interests that would likely be affected, and that it would be unwise for it to interfere in that way at present.

It is very evident that there is a general shortage of railway cars and equipment on the railways, both in Canada and in the U.S., at present. Such is usually the case at this time of year, but it appears to be accentuated this year on account of the bountiful crops in the West and the general activity of business. How far the railway companies are in fault in not providing for the present situation, we are not now in a position fully to judge. It would not, in our opinion, be proper for us to make any order for immediate provision in this respect, as it would be impossible for the railway companies to obey it. The best, we think, that can be done is to inquire into the whole situation and to endeavor to find a remedy for the future. The question of the proper and fair distribution and allotment of railway cars and equipment, in case of shortage, is a very difficult one. The Board is not authorized to undertake the direction of the distribution and allotment of railway cars and equipment. It would be impossible for the Board to perform this office properly. Railway companies have in their employ officers skilled in this work, having before them daily reports from all points on the systems of their respective companies. They have a knowledge of the nature of the business done at different points and the respective requirements in this respect which this Board could not hope to acquire. Even with such officials, the work must be a very difficult one. The function of the Board in this respect is to see that specific provisions of the Railway Act are carried out. The only provisions of the Railway Act specifically relating to the allotment and distribution of railway cars, are those contained in sec. 253, which forbid railway companies to distribute or allot freight cars so as to discriminate unjustly against any locality or industry, or against any traffic which may originate on their respective railways destined to points on other railways in Canada with which they connect. The same section also contains provisions which might properly be considered as indirectly governing the relative supplying of cars for different purposes; such, for example, as the prohibition against giving undue or unreasonable preference or advantage to particular persons or particular descriptions of traffic, and against making differences in treatment in the receipt, etc., of goods in favor of or against particular persons or particular descriptions of traffic, or subjecting such to undue or unreasonable prejudice or disadvantage. Even in these clauses, it should be noted, the prohibition is not generally against preference or discrimination, but against "undue or unreasonable preference" and "unjust discrimination."

In the carriage of grain brought by vessels to ports on Georgian Bay and Lake Huron and thence by rail, the usual course is to unload the grain from vessels into elevators and transfer it thence to railway cars. As the reports of the Traffic Officer show, the G.T.R. Co. does not own elevators at Midland, Meaford or Point Edward, and while it does own the elevator at Collingwood, it has leased it to private parties, so that none of these elevators are controlled by the railway company. The only method by which that company can refuse to receive from lake vessels export grain brought down from Fort William to any of these ports is by failing to supply sufficient cars for its reception from the elevators, or by refusing to allow the loading of grain into cars which are on hand. The latter alternative can at once be rejected; but it may be assumed that the railway companies mentioned have not supplied sufficient cars to take away grain as fast as it could be brought by ship to these different ports and transferred to cars. It appears that, during Sept and Oct. of this year, much larger quantities of grain were received at and taken by rail from Depot Harbor over the line of the Canada Atlantic Ry. than were so received and taken last year. It also appears that, in 1903, there were shipped from vessel through the elevators to railway cars at Point Edward, Sarnia, Midland, Meaford, and Collingwood combined, 3,750,574 bush. of grain; in 1904, 2,730,329, and in 1905, 2,395,669; that, as regards Midland, to which Mr. Wright's comparison principally relates, the shipments were in 1903, 2,206,558; in 1904, 796,710, and in 1905, 959,723; and that there were unloaded at that port during these months in 1904, seven vessels whose cargoes aggregated 949,394 bush., and in 1905, 13 vessels whose cargoes aggregated 1,536,931 bush.

Until recently, Depot Harbor was a port on an independent line of railway—the Canada Atlantic—with which the G.T.R. Co. had nothing to do. That line was absorbed into the system of the G.T.R. Co. on Oct. 1, 1905. It was taken over as a running concern, with its various contracts and arrangements (for the fulfilment of which it is reasonable to presume that some preparation had been made), and with three large steamships engaged in the business of carrying goods by lake between Depot Harbor and ports in the U.S. These ships were registered in the U.S. and could not be used for carrying traffic between Canadian ports. The G.T.R. Co., during Oct., continued the operation of these vessels and received their cargoes at Depot Harbor for transportation to Coteau and other points. Our Traffic Officer reports that, in doing this, the railway company and the managers of the elevators did not discriminate, but took other vessels in regular turn with these. Both the Canada Atlantic and the G. T. Railway Companies were authorized by Parliament to make connections with transportation companies in the U.S., and to carry through Canada traffic originating in the U.S. The G.T.R. Co. claims that Parliament sought to encourage this traffic. Whether it did or not, it is certainly desirable that some of it should be diverted over Canadian railways and to Canadian ports, provided this can be done without such injury to Canadian interests as would more than compensate for the benefits to be derived therefrom. During the hearing of the complaint of the Dominion Millers' Association, it was stated on behalf of the G.T.R. Co. that none of the cars or equipment of the other portions of the company's system had been diverted to the Canada Atlantic route since its acquisition, and that, on the other hand, none of the cars or equipment of the Canada Atlantic line had been diverted to traffic of the other portions of the G.T.R. system. Apparently some freight cars of the G.T.R. are being used on the Canada Atlantic line, but whether the number is in excess of that which, in the ordinary course of business, would run over that line, the Board has not yet been able fully to determine. On the other hand, the Board knows that a large number of cars from U.S. railways are being used on the Canada Atlantic line. Whether these are in excess of or less than those usually found thereon, the Board is not at present informed. Our Traffic Officer is engaged on an inquiry respecting these matters. In the meantime the Board is not in a position to determine whether there has been discrimination by the G.T.R. Co. in favor of Depot Harbor and against Midland, or other ports, in the supply of cars. Certainly the Board cannot undertake to do as Mr. Wright asks—make a peremptory order requiring the G.T.R. Co. to move Canadian grain to the extent of at least 150,000 bush. a day through Midland. In order to do this, the railway company would be obliged to take cars used for other traffic, or upon other portions of its system, and thus probably occasion great loss and injury to other parties and other interests.

The Byrnes Construction Co. has been incorporated under the Ontario Companies' Act, with a capital of $40,000 and offices at Hamilton, Ont., to carry on a general contracting business. The provisional directors are:—J. W. Nesbitt, J. G. Gauld, J. Dickson, N. Slater, Hamilton, Ont.

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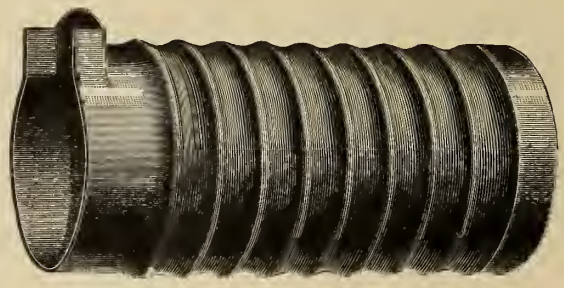

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Gas Pipe Lines Under Railways.

A number of orders have recently been passed by the Board of Railway Commissioners authorizing the pipe line companies, formed for the purpose of distributing natural gas, to carry their lines under the tracks of railway companies. The following order made by the Board of Railway Commissioners Nov. 4, respecting the carrying of the lines of the Ontario Pipe Line Co. under the G.T.R. tracks at 10 points in the city of Hamilton, is of interest as showing the conditions upon which such orders are granted:—

That the applicants are authorized, at their own expense, to lay the said gas pipes or mains under the tracks of the G.T.R. on the lines between the points indicated, and in the manner shown on the respective plans, filed under reference no. 17,813, and thereafter to maintain, renew or repair the same as may be necessary, subject to the observance and performance by the applicants, terms and conditions following, viz.:—(1). Each of the mains shall be of the diameter shown on the plan applicable to the crossing at which pipe is to be laid, and shall be encased within a larger pipe, open at both ends, and properly ventilated, and of sufficient size and strength to properly encase and protect the same. The pipes shall, for the whole distance between the points, be of cast iron or of such other material as may from time to time be directed by the Board, and shall be laid at the depth below rail level shown on the respective plans, and the joints of each of the pipes shall be at all times so securely attached together and properly caulked as to prevent, so far as possible, any escape of gas. (2). All work in connection with the laying, maintenance, renewal or repair of the pipes, and their continued supervision, shall be performed by the applicants, but no work shall at any time be done in such a manner as to obstruct, delay or in any way interfere with the operation of any of the trains or traffic of the G.T.R. (3). The applicants shall maintain the said pipes in good order and condition so that at no time shall any damage be caused to the property of the G.T.R., or any of the tracks be obstructed, or the usefulness or safety of the same for railway purposes be impaired, or the full use and enjoyment thereof, as heretofore by the G.T.R., in any respect interfered with. (4). Before any work of laying, renewing or repairing any of the pipes is begun, the applicants shall give to the Superintendent of the G.T.R. at Allandale, where the pipes are laid under any of the tracks of the Northern Division, and to the Superintendent of the G.T.R. at Toronto, where the pipes are laid under any of the tracks of the Middle Division, 48 hours' notice in writing so as to enable the G.T.R. to appoint an inspector to see that the work is performed in such a manner as shall, in all respects, comply with the directions of this order, and the applicants shall pay the wages of such inspector, which, however, shall not exceed $3 per day. (5). The applicants shall assume and be responsible for all risk of accident, loss, injury or damage of every nature whatever, which may happen or be in any way caused during or by reason of the laying, maintenance, renewal, or repair of the said pipes, or either of them, or the use thereof, or by any failure on the part of the applicants, their servants or agents, to at all times observe and perform fully and in all respects the terms and conditions of this order, and from and against all claims, costs, charges, suits, actions or proceedings arising out of or by reason of any such accident, the applicants shall fully indemnify, defend and save harmless the G.T.R. (6). Should the G.T.R., at any time hereafter, place any tracks at any of said points above mentioned outside the said points marked upon the plans on file, the applicants shall at once lay, or cause to be laid, and thereafter maintain under such tracks, and for a space of 10 ft. beyond the outermost rail, pipes of a similar character and material to those herein authorized to be laid between the points, and all the provisions of this order shall apply to the laying, maintenance, renewal or repair, of such pipes, fully and in all respects. (7). Should any dispute arise between the applicants and the G.T.R. as to the terms and conditions of this order, or as to the manner in which the said pipe or pipes encasing the same are being laid, maintained, renewed or repaired, the same shall be referred to the Chief Engineer of the Board, whose decision shall be final and binding on all parties.

The Canadian Locomotive Co.'s Strike.

It was recently announced that the strike of machinists at the Canadian Locomotive Co.'s works at Kingston, Ont., was at an end. As far as the company is concerned the strike has practically been a thing of the past for the last two years and a half; the shops have been running full with entire satisfaction to the company, and the best of feeling has prevailed between the company and its employes.

The company has always stood for the "open shop," and in accordance with that principle, its doors have been opened to all competent men, regardless of the fact as to whether they belonged, or did not belong, to a trades union. In the carrying out of this principle the shops were open to the members of the International Association of Machinists at any time since the strike began, but that organization saw fit to continue this paper strike and in its journal the plant was named as a "struck" shop; consequently, members in good standing in that organization were not allowed to take work with the company. Evidently, better counsel has prevailed with the executive of the association, and as a result the strike has been declared off. In consideration for this the company was asked to make certain concessions; that is to say, to agree to employ a certain number of the members of the association, or to give preference to its members until such time as those who belonged to Kingston and desired re-employment in the shops had been placed, but the company realized that to extend this preference to these men necessarily would mean discriminating against other men for the time being at least, and would not be in accord with the principle for which the company stood when the strike was proclaimed; therefore the management declined to make any concessions and simply agreed to continue carrying out its policy of non-discrimination; in other words, it continues running an "open shop" open alike to the members of the International Association and to all others.

This strike originally was not fought on any question of wages, or hours, or anything of that kind. The machinists' union made certain demands upon the company, including increase of pay, a 54 hour week, the limitation of apprentices, the abolition of piece work, and other things of that kind. On all these the company declared itself ready and willing to negotiate, or, if negotiations failed, to refer the questions at issue to arbitration. But, included in the demands were two which the company peremptorily refused to consider. These were: 1st. That in engaging machinists the company should give preference to members of the International Association of Machinists; in other words, that the company should discriminate and close its shops to the members of the Amalgamated Society of Engineers (the English Union) and to non-union machinists. 2nd. That no handy man shall be advanced to the position of a machinist no matter how long he had been employed on the class of work, nor how competent he may have become; that is to say, he should not be employed on any vise, lathe, planer, shaper, milling machine, slotting machine or boring mill. The union further demanded that a man named Graham should be taken off a wheel job then recently given him, and that that job should be given to a machinist.

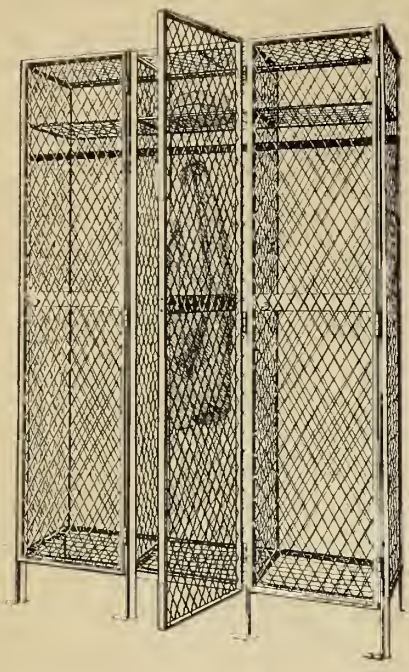
On the company's refusal to grant these two demands the men went on strike, and, therefore, they were really the only questions at issue. The union has now abandoned both these demands, as the shops remain open to every man, regardless of his affiliations or non-affiliations. The company has not discharged the man whose dismissal the union demanded, and has not agreed to refuse promotion to men, who, although not having served an apprenticeship as a machinist, have proved by experience, competency and industry, to be worthy of promotion. When it was rumored in the shops that the strike had been called off, some of the employes became very nervous lest the company had, tacitly, agreed to dispense with their services in order to make room for the return of some of the striking machinists, and the company found it necessary to post in the shop the following notice:—

"The International Association of Machinists, through its Second Vice-President Mr. Champion, has called off the strike which was proclaimed in this shop on April 30, 1902. It occurs to us that, learning this, some of our employes, who had entered these shops while the strike was in progress, and who had taken the places of the striking machinists, might feel alarmed lest we had agreed—in consideration of the strike being called off—to dismiss them to make way for the strikers. To remove any such impression, we desire to state the strike was not called off at our request or suggestion; we have made no concessions whatever, and no man, whose conduct and services are satisfactory, will be dismissed to make room for others, whether they belong to the International Association of Machinists or not. Below we give a copy of a document to which we have Mr. Champion's signature, from which it will be seen that we stand to-day just where we did the day the strike was proclaimed, viz., for absolute non-discrimination against any man, whether he belongs to an organization or not. (Signed) Canadian Locomotive Co., Limited, C. Bermingham, Managing Director.

"Mr. Champion, Second Vice-President International Association of Machinists, visited Kingston on Nov. 21, and had a conference with Mr. Bermingham, Managing Director of the Canadian Locomotive Co., and as a result the Kingston strike is called off, and the firm agrees to apply its policy of absolute non-discrimination to the members of the International Association of Machinists, as well as to all others."

The winter transcontinental train service on the C.P.R. provides for the running of an express train daily each way between Montreal and Vancouver, and a daily train each way from Montreal as far west as Calgary.

In order to improve arrangements in connection with the transportation of freight over the G.T.R. lines and connections, it has been arranged to pass all customs entries for freight carried into the U.S. at St. Albans, Vt., and to accomplish this purpose the U.S. Treasury Department has authorized the closing of Swanton, Vt., as a port of entry. Swanton was the point at which the freight carried over the Canada Atlantic Ry. was passed into the U.S., reaching that point from Aldburg Jct., over the track of the Central Vermont Ry—a G.T.R. controlled line. Swanton, we are advised, is the terminus of the G.T.R. Ottawa Division, and not St. Albans, Vt., as recent press reports stated.



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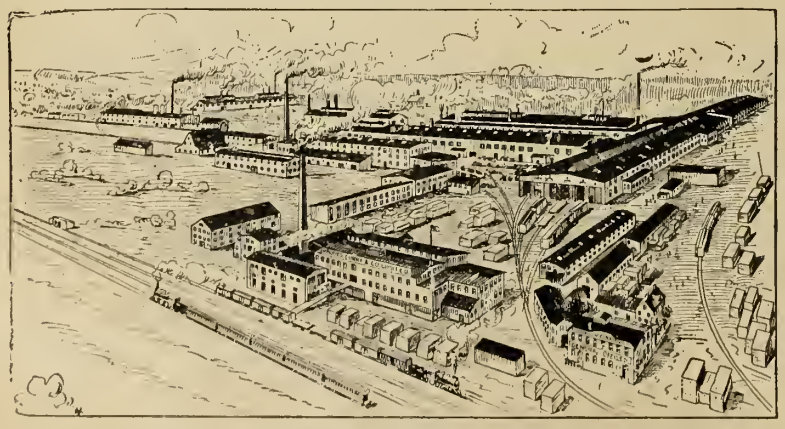

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A. H. Bears, Master of Bridges and Buildings, C.P.R., Winnipeg, Man., born at Charlottetown, P.E.I., Jan. 6, 1857.

R. H. Bell, Travelling Freight and Passenger Agent, Canadian Northern Ry., Montreal, born at Toronto, Jan. 13, 1865.

G. M. Bosworth, 4th Vice-President C.P.R. Montreal, born at Ogdensburg, N.Y., Jan. 27, 1858.

G. McL. Brown, General Passenger Agent C.P.R. Atlantic Steamship Line, Montreal, born at Hamilton, Ont., Jan. 29, 1856.

P. W. Brown, Purchasing Agent, Duluth, South Shore and Atlantic Ry., and Mineral Range Ry., Marquette, Mich., born at Uxbridge, Worcester Co., Mass., Jan. 18, 1845.

E. L. Chudleigh, Chief Train Dispatcher C.P.R., Cranbrook, B.C., born at Clinton, Ont., Jan. 3, 1873.

W. A. Cowan, Resident Engineer, C.P.R., Toronto, born at Galt, Ont., Jan. 22, 1877.

N. S. Dunlop, Tax Commissioner C.P.R., Montreal, born near Almonte, Ont., Jan. 17, 1861.

Sir Sanford Fleming, K.C.M.G., Director C.P.R., born at Kirkcaldy, Scotland, Jan. 7, 1827.

T. A. Foque, Mechanical Superintendent Minneapolis, St. Paul and Sault Ste. Marie Ry., Minneapolis, Minn., born at Boston, Mass., Jan. 14, 1866.

H. V. Harris, ex-General Manager Midland Ry. of Nova Scotia, Truro, N.S., born at Devonport, Devonshire, Eng., Jan. 16, 1857.

G. F. Hichborn, Agent Great Eastern Fast Freight Line, New York City, born at Boston, Mass., Jan. 31, 1875.

W. J. Hunter, Commercial Agent, G.T.R., Winnipeg, born in Toronto, Jan. 10, 1864.

A. Lichteinhein, Galena Signal Oil Co., New York, born there Jan. 15, 1855.

A. J. McGee, General Accountant Temiskaming and Northern Ontario Ry., Toronto, born at Lachine, Que., Jan. 24, 1876.

W. Phillips, General Eastern Agent Canadian Northern Ry., Toronto, born at Toronto, Jan. 31, 1870.

J. Pullen, Assistant Freight Traffic Manager, G.T.R., Montreal, born at Shepton Mallet, Somersetshire, Eng., Jan. 23, 1863.

S. J. Sharp, Western Passenger Agent C.P.R. Atlantic Steamship Lines, Toronto, born at London, Ont., Jan. 21, 1860.

J. R. Steele, Freight Claims Auditor C.P.R., Montreal, born at St. Johns, Newfoundland, Jan. 14, 1856.

W. A. Trueman, Director, Secretary and Treasurer Albert Southern Ry., Albert, N.B., born at Wallace, N.S., Jan. 29, 1849.

S. G. Wagstaff, Commercial Agent, G.T.R., Toledo, Ohio, born at Hamilton, Ont., Jan. 6, 1866.

F. J. Watson, Division Freight Agent G.T.R., Montreal, born at Toronto, Jan. 12, 1866.

G. H. Webster, C.E., President British Columbia Contract Co., Vancouver, B.C., born at Creemore, Ont., Jan. 31, 1857.

T. H. White, Chief Engineer of Location and Construction, James Bay Ry., and Great Northern Ry. of Canada, Toronto, born at St. Thomas, Ont., Jan. 27, 1848.

The New York Court of Appeals has decided that if a passenger cannot find a seat in a car for which he has bought a ticket he has a right to go into a drawing-room car and take a seat until one is provided for him in the ordinary passenger car, and also that if seats are not to be had because they are occupied by parcels he is not bound to ask the owners to remove them.

Railway Equipment Notes.

The C.P.R. has placed an order for building 10 freight locomotives at its Angus shops, Montreal.

The Canadian Locomotive Co:, has delivered five of the 15 Mogul locomotives it is building for the G.T.R.

The Central Vermont Ry has ordered from the American Locomotive Co.'s Schenectady works, four 10-wheel loocmotives.

The Dominion Atlantic Ry. is reported to be arranging to have one of its locomotives, recently damaged in a collision, repaired at the I.C.R. shops, Moncton, N.B.

The Springfield Ry., which is a short line owned by the Davison Lumber Co., Bridgewater, N.S., has purchased a snowplow from Rhodes, Curry & Co., Amherst, N.S.

The Intercolonial Ry. received between Nov. 15 and Dec. 15, one first-class passenger car and 63 box cars, 60,000 lbs. capacity, from Rhodes, Curry & Co., Amherst, N.S.

The G.T.R. has ordered from the American Locomotive Co.'s Schenectady works, 10 consolidation and eight 10-wheel locomotives for its lines in the U.S. west of Detroit and St. Clair rivers.

Eight G.T.R. locomotives were badly damaged by a fire at the roundhouse, Bathurst St., Toronto, Nov. 27. Four were sent for repairs to the Toronto shops, and two each to Stratford and Montreal.

The C.P.R. between Nov. 15 and Dec. 13, received the following rolling stock from its Angus shops, Montreal:—6 locomotives, 5 first-class cars, 3 baggage and express cars, 267 box cars and 165 flat cars.

The Interstate Commerce Commission's order that all rolling stock used in interstate commerce must be fitted with air brakes by Aug., 1906, affects the C.P.R., the G.T.R., and other Canadian lines whose cars run into the U.S.

The Intercolonial Ry. placed the following orders for rolling stock during month ended Dec. 15:—25 refrigerator cars, 60,000 lbs. capacity; two flangers, with Rhodes, Curry & Co., Amherst, N.S.; and 10 wing elevator snow plows.

The Locomotive and Machine Co. of Montreal has completed the six 2½-yard steam shovels ordered by the C.P.R., but delivery will not be made until the spring. Work is proceeding on the four 3½-yard steam shovels for the C.P.R.

The Quebec Central Ry. will probably place orders for the following rolling stock early in the year: 6 refrigerator cars, 14 stock cars, and six passenger coaches. It will receive during the current month two mogul locomotives from the Canadian Locomotive Co., Kingston, Ont.

The G.T.R. has ordered from the Locomotive and Machine Co. of Montreal, 40 consolidation freight locomotives, delivery to begin May 1. This is in addition to the 15 consolidation and ten 10-wheel locomotives ordered in Oct., particulars of which were given in our last issue.

The C.P.R. has under construction at its Angus, Montreal, shops, an electric motor which will be utilized on some of the company's lines in Quebec. This is an experiment only, and no decision has been reached in the way of specifically adopting electricity as a motive power.

The Intercolonial Ry. has placed the following orders for rolling stock:—100 box cars, 80,000 lbs. capacity; 100 box cars, 60,000 lbs. capacity, and 130 dump cars, with Rhodes, Curry & Co., Amherst, N.S.; 75 box cars, 60,000 lbs. capacity, with the Crossen Car Manufacturing Co., Cobourg, Ont.; and 25 box cars, 60,000 lbs. capacity, also in Canada.

Following are the general dimensions of the six locomotives for which the G.T.R. recently placed an order with the Canada Foundry Co., Toronto:—cylinders, 22½ and 35 in. diameter by 32 in. stroke; driving wheels, 63 in. centres; boiler 68⅜ in. diameter; firebox, 96⅛ in. long by 75¼ in. wide; tubes 353 of 2 in. diameter and 15 ft. long; wheel base, rigid, 17 ft.; driving, 17 ft.; engine 25½ ft.; total, 56 ft. 2½ in. Weight in working order, tender, 143,300 lbs.; on drivers, 170,000; on engine truck 26,000 lbs.; total weight of engine, 200,000 lbs.

Following are general dimensions of the 20 10-wheel freight locomotives for which an order has been placed by Mackenzie, Mann & Co. with the Canada Foundry Co., Toronto, for use on its different lines:—

WEIGHT.—On drivers, 130,000 lbs.; on engine truck, 30,000 lbs.; of engine, 160,000; of tender, 120,000 lbs.; total, engine and tender, 280,000.

CYLINDERS.—Diameter, 19 in.; stroke of piston, 36 ins.

BOILER.—Diameter, 62 in.; working pressure, 200 lbs.; grate area, 31 ft. 7 in.

TUBES.—Number, 24; diameter, 2 in.; 11 B.W.G.

DRIVING WHEELS.—Diameter, 57 in.; wheel base of drivers, 14 ft.

TENDER.—Water capacity, 5,000 imperial gals.; coal, 10 tons. Fitted with Simplex truck bolsters.

Following are general dimensions of the four switching locomotives for which an order has been placed by Mackenzie, Mann & Co. with the Canada Foundry Co., Toronto:

CYLINDERS.—Diameter, 19 in.; stroke of piston, 24 in.

WHEELS.—Drivers, 50 in. diameter; driving wheel base, 11 ft. 6 in.; total wheel base, 11 ft. 6 in.

WEIGHT.—In working order, on drivers, about 130,000 lbs.; total, 130,000 lbs.

BOILER.—Diameter, 64 in.; working pressure, 180 lbs.

TUBES.—Number, 271; diameter, 2 in.; length, 10 ft. 6 in.

FIREBOX.—Length, 96 in.; width, 34⅜ in.

SIZE.—Width, 10 ft.; length, 57 ft.; total wheel base of engine and tender not to exceed 41 ft.; height above rail, 14 ft. 7 in.; width, 9 ft. 6 in., tender filling hole.

TENDER.—Capacity, 3,200 imperial gals. water, and 6 tons soft coal.

Following are general dimensions of the eight 10-wheel passenger and freight locomotives, for which an order was recently placed with the Canadian Locomotive Co., Kingston, for Mackenzie, Mann & Co.'s railway system:—

WEIGHT IN WORKING ORDER.—On drivers, 107,000 lbs.; total, 135,000 lbs.

WHEEL BASE OF ENGINE.—Rigid, 13½ ft.; total 23 ft. 8 in.; total engine and tender, 60 ft. 4½ in.

DRIVING WHEELS.—Diameter, 63 in.; centres, cast iron; driving journals, 8½ by 10 in.

CYLINDERS.—Diameter, 18 in.; by 24 in. stroke.

BOILER.—Type, radial stayed, wagon top; working pressure, 200 lbs.; number of tubes, 236; diameter of tubes, 2 in.; length of tubes, 11 ft.

BRAKES—Westinghouse.

TENDER.—Weight, loaded, 122,000 lbs.; capacity, 5,000 imperial gallons; style of tank, U shaped, style of truck, four wheeled; diameter of wheels, 33 in.; kind of wheel, double plate chilled; diameter and length of journal, 5½ by 10 in.; Simplex brake beam.

The 60 locomotives for which the C.P.R. had placed orders as mentioned in our last issue—35 with the Locomotive and Machine Co. of Montreal, 15 with the Canadian Locomotive Co., Kingston, Ont., and 10 with its Angus, Montreal, shops, will be all of the same class, D. 10-0 for passenger and freight service, delivery to commence in Dec., 1905, and to be completed during Jan. and Feb., 1906. Following are general dimensions:—

WEIGHT.—On drivers, 142,000 lbs.; total 190,000.

CYLINDERS.—Diameter, 21 ins.; stroke of piston, 28 in.

WHEELS.—Diameter of drivers, 63 in.; tyres, truck wheel, cast steel; tender wheel, wrought iron disk; wheel centres, cast steel.

BOILER.—Type, extended wagon top with radial stayed fire-box; working pressure, 200 lbs.; heating surface, 2,413 sq. ft.

TUBES.—Number 240 and 22; outside diameter, 2 in. and 5 in.; length, 14 ft. 2 in.

FIREBOX.—Length, 102 in.; width, 70 in; grate area, 50 sq. ft.

TENDER.—Capacity, 5,000 imperial gals. water, and 10 tons coal.

SPECIAL FITTINGS.—C.P.R. standard steel axles, brake shoes and springs; Westinghouse air brake Simplex brake beams.

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TRANSPORTATION APPOINTMENTS.

Allan Line Steamers.—D. O. Wood has been appointed General Freight Agent for Ontario. Office, Toronto.

G. E. Bunting continues in the service as Travelling Freight Agent. Headquarters, Toronto.

Canada Atlantic Transit Co.—J. Pullen, Assistant Freight Traffic Manager, G.T.R., has issued a circular announcing the following appointments for the Canada Atlantic Transit Co.—H. M. Baker, agent, National Dispatch Line, New York, has also been appointed agent, C.A.T. Co.; vice H. S. Heydon, resigned. Office, 82 Wall St. C. J. Pierce, heretofore New England Agent, National Despatch Line, has also been appointed agent C.A.T. Co. at Boston, in charge of New England territory, vice J. Ritchie, resigned. Office, Board of Trade Building. T. C. Burgess, agent at Minneapolis, Minn., vice H. A. Walmsley, transferred. Office, 521 Guaranty Loan Bldg. Mr. Burgess is the commercial agent of the G.T.R. at Minneapolis.

Canadian Northern Ry.—With the extension of the main line to Edmonton there has been a reorganization of the operating staff, particularly in the fourth district, and a General Superintendent has been appointed.

W. A. Brown, heretofore Superintendent District at Port Arthur, Ont., has been appointed General Superintendent, with office at Winnipeg, Man.

J. R. Cameron, heretofore Superintendent at Battleford, Sask., has been appointed Superintendent District 1, succeeding W. A. Brown, appointed General Superintendent. Office, Port Arthur.

F. T. Peebles, heretofore train dispatcher Districts 3 and 4, Dauphin, Man., has been appointed Train Dispatcher District 1, Port Arthur, succeeding T. Henderson.

The mileage of District 1 remains as heretofore, 505.6 miles.

No changes have been made in the officials of District 2, but the mileage has been increased from 438.6 to 493.2 miles, in addition to the Winnipeg terminals. The district now comprises the following lines: Carman Jct. to Belmont, 117.5 miles; Winnipeg to Emerson, 66.6 miles; Morris to Somerset, 62.2 miles; Belmont to Virden, 90.9 miles; Emerson to Ridgeville, 10.1 miles; Oak Point Jct. to Oak Point, 54.0 miles; Greenway to Adelpha, 51.9; Hartney Jct. to Brandon, 40.0 miles.

There has been no change made in the officials of District 3, at Dauphin, Man., nor in the mileage, which remains at 763.7 as heretofore. The train dispatchers at Dauphin heretofore did the dispatching for the line from Gilbert Plains Jct. westerly, as well as for District 3, but will in future do the dispatching for District 3 only, a new office having been opened for District 4.

The main line from Gilbert Plains Jct., Man., to Humbolt, Sask., 244.3 miles, was heretofore District 4, and was in charge of an Acting Superintendent at Kamsack, Sask., while the train dispatching was done by the staff of District 3 at Dauphin. District 4 has now been extended from Humbolt to Edmonton, and headquarters of the district have been moved from Kamsack to Battleford. J. Abbot, heretofore Acting Superintendent at Kamsack, has been appointed Acting Superintendent of the extended division.

J. R. Cameron, who previously had been Superintendent at Kamsack, moved forward to Battleford on the completion of construction, and had charge of the work of placing a train service in operation on the new line.

A dispatching office for the district has been opened at Battleford, J. Rochon being appointed Chief Dispatcher, with T. M. Ryan and W. Kirkpatrick as train dispatchers.

W. J. Pace, in charge of the operations of the Edmonton, Yukon and Pacific Ry. at Edmonton, Alta., has also been appointed Assistant Superintendent District No. 4, C. N. Ry. Office, Edmonton, Alta.

The mileage of the district has been increased from 244.3 to 644.2 miles, and includes the line from Gilbert Plains Jct., Man., to Edmonton

Canadian Pacific Ry.—W. A. Cooper has been appointed Superintendent of Sleeping, Dining and Parlor Cars, succeeding G. McL. Brown, promoted. Office, Montreal.

H. H. Vaughan, heretofore Superintendent of Motive Power, has been appointed Assistant to the Vice-President. His duties will consist of the general charge over all motive power, electrical and mechanical matters on Eastern Lines. Office, Windsor St. Station, Montreal.

J. B. Elliott has been appointed General Master Mechanic, Eastern Lines. Office, Angus shops, Montreal.

N. S. Dunlop, Tax Commissioner, has also been appointed claims adjuster for Eastern Lines. Office, Montreal.

W. R. Maxwell has been placed in charge of the work in connection with the reservations on the company's Atlantic and Pacific steamers for through passengers, and detail work in connection with Chinese passengers, in the General Passenger Office, Montreal, heretofore in charge of W. G. Annable, appointed General Baggage Agent.

A. F. Smith, heretofore Chief Train Dispatcher District 1, Ontario Division, Toronto, has been appointed Train and Station Inspector, Eastern Lines. Headquarters, Montreal.

H. E. Kelly, heretofore Night Chief Train Dispatcher, Ontario Division, Toronto, has been appointed Chief Train Dispatcher there, succeeding A. L. Smith, promoted.

W. A. Killingsworth, heretofore Dispatcher District 1, Ontario Division, Toronto, has been appointed Night Chief Dispatcher there, for Ontario Division, succeeding H. E. Kelly, promoted.

—. Pennefather has been appointed acting locomotive foreman, temporarily, at Macleod, Alta., pending the appointment of a successor to M. S. Wheatley, appointed general foreman, Esquimalt and Nanaimo Ry.

J. R. McNabb has been appointed Trainmaster, District 2, Western Division, succeeding D. McLean. Office, Cranbrook, B.C.

J. G. Norquay has been appointed road foreman of locomotives, District 2, Western Division.

M. S. Wheatley, heretofore general locomotive foreman C.P.R., at Macleod, Alta., has been appointed general foreman, E. and N. Ry., succeeding T. F. Haggart, resigned. Headquarters, Wellington, B.C.

Chicago and Northwestern Ry.—We are advised that the appointment of W. L. Wyand as Canadian Excursion Agent, with headquarters at Winnipeg, is for a limited period only.

Grand Trunk Ry.—E. S. M. Lovelace, who has been in the employ of the company for some years, and has latterly been engaged on various parts of the line in connection with new work, has been appointed Assistant Engineer at Hamilton, Ont., succeeding W. P. Chapman, who has entered the James Bay Ry. service.

A dispatching office has been established at Palmerston, Ont., for the northern portions of the Middle Division Lines. A. Webster, M. D. Thomson and C. G. Rutledge have been appo nted dispatcher.

C. H. Hambly, heretofore freight agent at Trenton, has been appointed freight agent at Kingston, Ont., succeeding W. Thomson, promoted.

W. Thomson, heretofore Freight Agent at Kingston, Ont., has been appointed to the same position at Ottawa, vice R. K. Claire.

The following agents have been appointed: Lennoxville, Que., E. J. Astell; Emsdale, Ont., C. L. Bowles; Inglewood, Ont., J. W. Masters (Relvg.); St. George, Ont., C. R. Anderson; Belgrave, Ont., D. F. McGregor; Outside Ticket Agents: Brockville, Ont., John H. Fulford; Niagara Falls, N.Y., W. J. Hamilton.

R. G. Butler, General Agent G.T.R., Milwaukee, Wis., has also been appointed Manager of the G.T. Milwaukee Car Ferry Co., with charge of operation.

Lake Erie and Detroit River Ry.—J. Harmon, Receiver, of the Pere Marquella Rd., has been appointed Receiver, L. E. and D. R. Ry. by the Exchequer Court, Ottawa.

Mackenzie, Mann & Co.'s Eastern Lines.—H. K. Wicksteed, formerly Chief Engineer James Bay Ry., is now Chief Locating Engineer for M., M. & Co.'s Eastern Lines.

New York Central Rd.—C. F. Daly's appointment as Passenger Traffic Manager of lines east of Buffalo, announced in our last issue, includes the Boston and Albany Rd., West Shore Rd., St. Lawrence and Adirondack Ry., New York and Ottawa Ry. and Rutland Rd.

W. J. Lynch's appointment as Passenger Traffic Manager of lines west of Buffalo, includes the following lines:—Lake Shore and Michigan Southern, Cleveland, Cincinnati, Chicago and St. Louis, Michigan Central, Lake Erie and Western, Indiana, Illinois and Iowa, Indiana Harbor, Lake Erie, Alliance and Wheeling, Dunkirk, Allegheny Valley and Pittsburg.

The General Advertising Department, which has been established under the management of G. H. Daniels, will embrace all the lines above mentioned as coming under the respective jurisdictions of Messrs. Daly and Lynch.

Pere Marquette Rd.—G. W. Perkins, of J. P. Morgan & Co., has been elected Chairman of the Board.

J. Harmon has been appointed Receiver of the P.M. Rd., and also of the Cincinnati, Hamilton and Dayton Rd.

Quebec Central Ry.—As foreshadowed in our last issue, F. Grundy, who has been General Manager for 17 years and Vice-President for three years, has resigned the position of General Manager and has been succeeded by J. H. Walsh, who has been General Freight and Passenger Agent for 24 years.

E. O. Grundy, who has been Assistant to the General Freight and Passenger Agent for 14 years, has been appointed General Freight and Passenger Agent

Robert Reford Co., Ltd.—A. Reford who was appointed Western Agent when D. O. Wood resigned to enter the Allan Line service, has returned to Montreal, and has been succeeded by E. T. Boland, heretofore Western Freight Agent, Dominion Line Steamships, Portland service. Office, Union Station, Toronto.

Wabash Rd.—F. H. Tristram, Assistant General Passenger Agent, has been transferred to Chicago, Ill., vice F. A. Palmer, resigned.

R. F. Kelley has been appointed Assistant General Passenger Agent, with headquarters at Pittsburg, Pa., vice F. H. Tristram, promoted.

R. N. Collyer has been appointed General Agent at Buffalo, N.Y., in charge of the operating, freight and passenger departments, in freight and passenger territories heretofore under the jurisdiction of J. J. Mossman and R. F. Kelley, promoted. Freight and passenger representatives in this territory will report direct to Mr. Collyer.

J. J. Mossman has been appointed Division Freight Agent at Detroit, Mich., vice R. N. Collyer, promoted.

In connection with the merging of the Buffalo and Detroit divisions, we are advised

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LOCOMOTIVE SHOPS — PLANING MILLS
CAR SHOPS — MACHINE SHOPS

320, 322 and 324 ST. JAMES ST., - MONTREAL

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that G. M. Burns, Superintendent at Detroit, Mich., has jurisdiction over Wabash matters generally in Canada, there being a number of matters to be attended to in which the G.T.R. is not interested. C. S. Cunningham is joint Superintendent of the joint property in Canada, with office at St. Thomas, Ont.

White Pass and Yukon Route.—A. B. Newell, Vice-President and General Manager, having resigned, the office of Vice-President has been abolished. A. L. Berdoe, heretofore Comptroller, has been appointed General Manager, with offices at Vancouver, B.C., and Skagway, Alaska. The duties of Comptroller will hereafter be assumed by the General Manager, and the office of Comptroller has been abolished.

Canadian Northern Ry. Earnings, etc.

Gross earnings, working expenses, net profits, increases or decreases over 1904-05, from July 1, 1905:

	Earnings.	Expenses.	Net Earnings.	Increase or Decrease.
July..	$395,100	$ 252,600	$ 142,500	$ 51,400+
Aug..	357,900	246,200	111,700	12,200+
Sept..	378,500	268,300	110,200	14,000+
Oct..	557,100	298,900	258,200	113,600+
Nov.	566,800	341,700	225,100	68,700+
	$2,255,400	$1,407,700	$847,700	$259,900+

Mileage increased to 1,932 during the month, against 1,887 in Oct., 1904.

Approximate earnings for Nov., $566,800, against $410,000 for Nov., 1904.

C.P.R. Earnings, Expenses, etc.

Gross earnings, working expenses, net profits, increases or decreases over 1903-04, from July 1, 1904:—

	Earnings.	Expenses.	Net Profits.	Increase or Decrease.
J'ly	$4,629,174.95	$2,991,397.29	$1,449,652.14	$188,125.52+
Aug.	4,796,733.98	3,005,088.07	1,791,645.91	263,715.48+
Sept.	4,872,575.38	3,086,565.35	1,776,010.05	507,202.49+
Oct.	5,722,767.30	3,448,696.12	2,274,071.18	707,957.27+
	$20,021,251.61	$12,541,746.81	$7,479,504.80	$1,667,000.76+

Approximate earnings for Nov., $5,648,000, against $4,659,000 for Nov., 1904.

DULUTH, SOUTH SHORE AND ATLANTIC RY.—Gross earnings for Oct., $260,050.10; net earnings, $80,799.79 against $230,156.19 gross and $66,823.85 net for Oct., 1904. Net earnings for four months ended Oct. 30, $396,910.23 against $336,045.48 for same period 1904. Approximate earnings for Nov., $269,119 against $221,384 for Nov., 1904.

MINERAL RANGE RY.—Approximate earnings for Nov., $61,582, against $62,874 for Nov., 1904.

MINNEAPOLIS, ST. PAUL AND SAULT STE. MARIE RY.—Gross earnings for Oct., $1,226,125.02; net earnings, $746,131.43 against $938,096.67 gross and $540,817.44 net for Nov., 1904. Net earnings for four months ended Oct. 31, $2,319,286.05 against $1,542,327.28. Approximate earnings for Nov., $1,060,355 against $914,884 for Nov., 1904.

Canadian Pacific Railway Land Sales.

	Acres. 1905.	Acres. 1904.	Amount. 1905.	Amount. 1904.
July...	58,477.37	36,425.75	$304,795.23	$177,473.94
Aug...	58,542.44	15,669.90	327,579 63	88,735.88
Sept..	111,479.71	16,470.02	556,642.64	73,642.96
Oct...	79,168.41	23,792.84	412,237.95	104,843.47
Nov..	200,441.36	23,392.88	1,065,512.03	112,261.70
	508,109.29	115,751.39	$2,666,767.48	$ 756,957.95

Grand Trunk Ry. Earnings, Expenses, etc.

The following statement of earnings, supplied from the Montreal office, includes the G.T. of Canada, the G.T. Western, and the Detroit, Grand Haven & Milwaukee Rys.

	1905.	1904.	Increase.	Decrease.
July	$3,059,675	$3,013,149	$46,526	....
Aug.....	3,301,254	3,108,137	193,117	....
Sept.....	3,409,363	3,182 972	226,391	....
Oct.....	3,569,182	3,344,181	225,001	....
Nov.....	3,446,074	3,221,296	224,778	....
	$16,785,548	$15,869,735	$915,813	....

The following figures relate to the individual lines, and are made out in sterling:

GRAND TRUNK RY. CO.

Revenue for Oct.:

	1905.	1904.	Increase.	Decrease.
Gross receipts....	£563,500	£521,700	£41,800	....
Working expenses	390,800	351,500	39,300	....
Net profit....	£172,700	£170,200	£ 2,500	....

Aggregate from July 1 to Oct. 31:

	1905.	1904.	Increase.	Decrease.
Gross receipts	£2,198,400	£2,108,500	£89,900	....
Working expenses	1,504,800	1,405,800	99,000	....
Net profit.....	£693,600	£702,700	....	£9,100

GRAND TRUNK WESTERN RY. CO.

Revenue for Oct.:

	1905.	1904.	Increase.	Decrease.
Gross receipts....	£108,500	£107,600	£900	....
Working expenses	90,300	90,800	....	£500
Net profit.....	£18,200	£16,800	£1,400	....

Aggregate from July 1 to Oct. 31:

	1905.	1904.	Increase.	Decrease.
Gross receipts	£395,500	£344,800	£50,700	....
Working expenses	335,000	315,200	19,800	....
Net profit.....	£60,500	£29,600	£30,900	....

DETROIT, GRAND HAVEN & MILWAUKEE RY. CO.

Revenue for Oct.:

	1905.	1904.	Increase.	Decrease.
Gross receipts....£	23,600	£ 23,000	£600	...
Working expenses	18,300	18,900	....	£600
Net profit	£ 5,300	£ 4,100	£1,200	....

Aggregate from July 1 to Oct. 31:

	1905.	1904.	Increase.	Decrease.
Gross receipts ....£	109,800	£110,500	....	£ 700
Working expenses	75,700	77,600	....	1,900
Net profit.... £	34,100	£ 32,900	£1,200	....

TRAFFIC RECEIPTS OF THE SYSTEM.

Aggregate from July 1 to Nov. 30:

	1905.	1904.	Increase.	Decrease.
Grand Trunk..	£2,741,757	£2,611,704	£130,053	...
G. T. Western	493,161	444,114	49,047	....
D. G. H. & M.	138,019	133,841	4,178	....
Total.....	£3,372,937	£3,189,659	£183,278	....

The G.T. Pacific Ry. has received some 7,000 replies to its offer of $250 in prizes for a name for the Pacific terminus of the projected line.

An unconfirmed press report states that the G.T.R. is negotiating with the Ontario Government with a view of building an hotel in the Algonquin National Park.

C. E. Benjamin, heretofore travelling passenger agent at St. Louis, Mo., has been appointed General Agent Passenger Department of the C.P.R.'s Atlantic Steamship service. Office, 232 South Clarke St., Chicago.

The New Brunswick and Prince Edward Island Ry. has put in force an increased rate for freight and passenger traffic. The passenger rate between Sackville and Cape Tormentine, N.B., has been increased 15 cents, and intermediate points in proportion.

The Great Northern Construction Co., which is being wound up under an order of the Quebec courts, was organized in New Jersey, some years ago, for the purpose of constructing a portion of what is now the Great Northern Railway of Canada. Col. J. K. McNaught is President of the company, and was a Vice-President of the G.N. Ry., until it passed under the control of Mackenzie, Mann & Co. J. Hyde of Montreal is the liquidator. A statement as to assets and liabilities is being prepared.

The Canadian Northern Ry. has placed a tri-weekly passenger train service in operation on its main line between Winnipeg, Man., and Edmonton, Alta., via Gilbert Plains Jct., 825 miles. The train leaves Winnipeg at 8 a.m. Mondays, Wednesdays and Fridays, reaching Edmonton at 19.30 (7.30 p.m.) Tuesdays, Thursdays and Saturdays. The eastbound train leaves Edmonton 24.01 (12.01 a.m.) Mondays, Wednesdays and Fridays, reaching Winnipeg 13.30 (1.30) p.m. Tuesdays, Thursdays and Saturdays. The company has also extended its train service from Leary's on the Carman section to Belmont, 54.4 miles; and from Hartney to Virden on the Hartney section, 43.00 miles, these trains being over recently completed branch lines, and portions of older lines, the sections and the train runs having been rearranged to suit the requirements of the territory through which the lines pass.

TRADE AND SUPPLY NOTES.

The matter which appears under this heading is compiled, in most cases, from information supplied by the manufacturers of, or dealers in, the articles referred to, and in publishing the same we accept no responsibility. At the same time we wish our readers to distinctly understand that we are not paid for the publication of any of this matter, and that we will not consider any proposition to insert reading matter in our columns for pay or its equivalent. Advertising contracts will not be taken with any condition that accepting them will oblige us to publish reading notices. In other words, our reading columns are not for sale, either to advertisers or others.

The Canadian Westinghouse Co. has issued circular 1,119 describing the motor generators, and circular 1127 describing control apparatus and trolleys for single phase railway systems manufactured at its works, Hamilton, Ont.

The B. Greening Wire Co., Hamilton, Ont., has issued its calendar for 1906, in the same style as in previous years, the plain figures for the days of the months being very convenient for office use. The back contains a number of useful tables for reference.

The Vulcan Iron Works Co., Toledo, Ohio, expects the largest year's business in its history. Improved machines and high speed tools have been installed, practically doubling the capacity of the works. The general arrangement of the shops has been changed so as to meet any demand which may arise and the equipment is now capable of turning out almost one steam shovel a day.

The American Locomotive Co. has issued a 36 pg. pamphlet describing the Cole 4-cylinder balanced compound locomotive. The reasons for recommending this form of construction of locomotives to meet American conditions are first outlined, and the locomotives of this type applied to the New York Central, the Erie and the Pennsylvania railroads are illustrated from photographs, and the leading dimensions of each design given by means of tables. To illustrate the chief details of construction, the New York Central locomotive no. 3,000, which was among the locomotives tested at the Louisiana Purchase Exposition, is selected for description. Line engravings show elevations and sections of the locomotive as a whole, the construction of the frames, cylinders, crank-axles and valves. A brief statement of the performances of this locomotive on the Pennsylvania Rd. testing plant at St. Louis is presented, followed by six different arrangements showing the application of four-cylinder balanced compounding to different types of freight and passenger locomotives, each of these types being illustrated by an outlined diagram. The pamphlet also includes an arrangement of cylinders served by a single valve, the cylinders being in the same transverse plane. It concludes with comments from the technical press concerning this type of locomotive.

Canadian Northern Ry.—The company's construction staff has been devoting practically all its attention to the completion of the line into Edmonton, Alta. While the track has been laid, and a train service put in operation, there yet remains a good deal of finishing up to be done, and some of the permanent bridge work to be completed. Other work done has included the completion of several branch lines in Manitoba, notably the line from Hartney to Virden, and the new short line between Winnipeg and Brandon.

In connection with the construction plans for 1906, R. J. Mackenzie, spent some considerable time during Dec. at Erwood, Sask., arranging for the starting of work on the line to Hudson Bay. Contracts are reported let for ties for delivery in the spring. The surveys have been gone on with during the summer and fall, and it is expected that everything will be arranged in order to start construction in the spring.

CANADIAN NORTHERN RAILWAY

CANADIAN NORTHERN

The New Canadian Highway from Port Arthur, the Head of Lake Superior, to:

Fort Frances	Emerson	Kamsack	Battleford
Winnipeg	Carman	Neepawa	Lloydminster
Portage la Prairie	Gladstone	Dauphin	Swan River
Brandon	Hartney	Grand View	Erwood
Morris	Carberry	Humbolt	Melfort

Also Edmonton and Strathcona

PASSENGER Through Tickets can be procured from all Railway Ticket Agents via Chicago, choice of Lines to St. Paul, thence Great Northern or Northern Pacific Railways to Emerson and Canadian Northern Railway to destination.

FREIGHT Traffic arrangements with both the Canadian Pacific and Grand Trunk Railways for the routing of freight via Port Arthur and Canadian Northern Railway.

Freight rates, folders and other information furnished on application to

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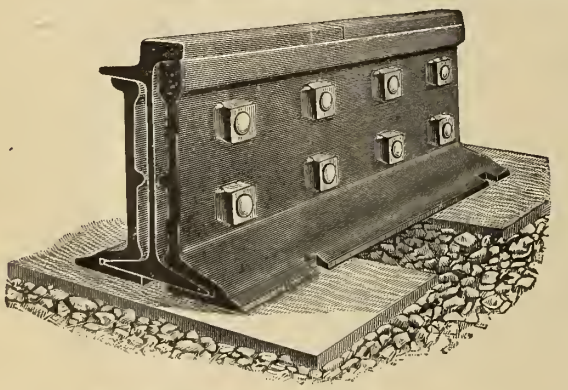
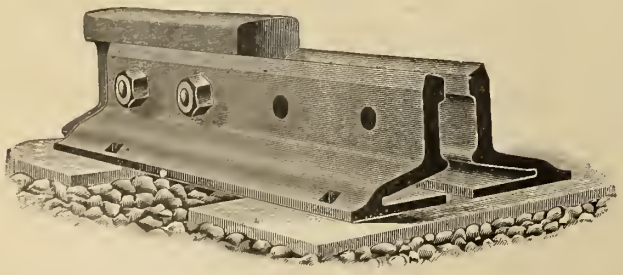
Traffic Manager, Winnipeg

R. H. BELL
T.F. & P. A., Montreal

WM. PHILLIPS
General Eastern Agent, Toronto

Railroad Essentials.





The day has passed when men of finance are willing to place their money into bad material in railroad construction only to be compelled to replace it by renewals or reconstruction after very little use. Many of the best and most successful steam and electric railroads use the rail joints of the Continuous patent type for standard track work, insulated joints, step joints, and electric bonding joints for the reason that experience has proven it to be the best appliance of its kind ever put upon the market, as evidenced by the fact that it is used in all parts of the world on over 20,000 miles of track.

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The Continuous Rail Joint Company of Canada Limited

WM. E. CLARK, Manager.

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Medals awarded at Paris and Buffalo Expositions.

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WRITE FOR COMPLETE LIST—TOO LONG TO PUBLISH

Send your requirements to Buy or to Sell.
I Buy for Cash.
If you do not see here what you want, write; stocks change with every mail.
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For Sale:

ELECTRICAL EQUIPMENT

SNOW PLOWS

1—Rotary Peckham-Ruggles, double truck.
1—Rotary single truck.
1—Maguire-Cummings Sweeper and Plow.
1—Nose, Taunton 8 wheel.
1— " " 4 "

CARS

(All styles, new and second hand)

5—51 ft. interurbans, new, now building.
2—44 " " complete, choice.
7—43 " " combination and straight.
3—41 " half open, half closed.
4—38 " suburbans.
1—38 " combination, choice, like new.
6—20-22 ft. city.
2—11 bench bodies, glass bulkheads, choice.
5— 9 bench bodies, and new 21E Brill trucks.
6—10, 12, 14 bench, new.
1—Sprinkler, 2,500 gallons.

TRUCKS

(All makes, new and used)

6—Sets Peckham, 14AXX, 6′ 3″ W.B.
8— " Bemis, No. 44, 4′ 6″ W.B.
5— " Barney & Smith, Class H. 6′ 6″ W.B.
4— " Dupont, single, 8′ 6″ W.B.
6— " Brill, Peckham, single, 6′ to 7′ W.B.

MOTORS—(Railway)

20—Lorain No. 34—50 hp.
60—12A, 38B, 49, 56, 3—Westinghouse.
50—G. E. 800, 1000, 1200, 57, 58, 52.
48—Stanley & Walker, 30, 25, 40, 50 hp.
4—80 hp. No. 39 Westinghouse.
Generators, Alternators and Engines, all styles and sizes.

STEAM EQUIPMENT

CARS—(Passenger)

5—42-ft. stdg. Coaches seating 52, all new plush, just overhauled. Painted and lettered to suit.

(Freight)

10—26′ 6″ Box, 36″ gauge.
50—40,000 to 80,000 lb. flat and gondola, standard gauge.
50—Coal Hopper bottom, standard gauge.

DUMP CARS

(All sizes, new and second-hand)

LOGGING CARS

17—8-wheel, 40,000, stdg., Lima.
15—8-wheel, 50,000, stdg., Russell.

LOCOMOTIVES

(All sizes standard and narrow gauge)

STEAM SHOVELS

1 -yd., 40-ton Marion B.
1½ " 28 " Vulcan, Little Giant, Traction.
1¼ " Industrial.
1¾ " 45 " Bucyrus.
1¾ " 47 " Marion A. Improved (new).
1¾ " 50 " Vulcan boom.
2 " 55 " Vulcan.
2½ " 60 " Vulcan Giant D, boom (new).
2½ " 60 " Marion G, 3 engines.
2½ " 55 " Bucyrus, 3 engines.
3 " 70 " Vulcan Giant C, 1903.
3 " 79 " Victor.
Rails, turntables, cableways, bridges, cranes and other equipment.

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C.P.R. Betterments, Construction, Etc.

Electrifying Branch Lines.—It is said that the management is considering the question of changing the motive power of some of its lines to electricity, and that a start will be made with some of the branch lines in the Province of Quebec.

Ottawa.—Representatives of the C.P.R. waited on the Government at Ottawa, Dec. 19, for the purpose of obtaining sanction to construct a double track from its existing lines into the Central Station, Ottawa. The C.P.R. obtains its entrance into the Central Station under an agreement with the Canada Atlantic Ry., which the G.T.R. since taking over the C.A.R. has notified that it desires to terminate. The C.P.R. has applied for a separate right-of-way, but the G.T.R. objects on the ground that the Dominion Government has already granted to the Canada Atlantic Ry. all the available right-of-way into the Central Station. The agreement for this, it is stated, provides for the use by other companies of the tracks on equitable terms. The matter is under consideration by the Government.

Georgian Bay and Seaboard Ry.—Plans have been filed with the Department of Railways, by the C.P.R., for the construction of a railway from Georgian Bay, between Port Severn and Penetanguishene to Maberley on the Toronto-Montreal line. The authority to construct the line was obtained last session of the Dominion Parliament by an act with this title.

Campbellford, Lake Ontario and Western Ry.—Application will be made next session of the Dominion Parliament for an Act granting an extension of time for the construction of this projected railway from near Blairton, on the C.P.R., to near Leaside Jct., also on the C.P.R. Toronto-Montreal line.

South Ontario Pacific Ry.—Application will be made next session of the Dominion Parliament for an Act extending the time for the construction of the projected railway and bridge. The line authorized is from Woodstock to Niagara River, Ont., with power to construct a bridge across the river.

Fort William-Winnipeg Second Track Work.—Following are the sub-contractors engaged on this work: Kenora section—F. Patterson, station 540 to station 665; Welch and Amabea, station 840 to station 890; G. Johnson & Co., station 890 to station 925; C. E. Larson, station, 1,120 to station 1,132; J. M. Kullander, station 1,620 to station 1,744; J. E. Bostrom, station 1,744 to station 1,835. Ignace section—Freeborg and and Stone, station 45 to station 175; Jas. Morrill, station 750 to station 850; Videen and Parsons, station 2,190 to station 2,405; Sharpe and Hoaglund, station 3,300 to station 3,482.

Stonewall to Lake Manitoba.—Application will be made next session of the Dominion Parliament for an extension of time for the construction of the projected line from Stonewall or Teulon, to the east shore of Lake Manitoba.

Great Northwest Central Ry.—Application will be made next session of the Dominion Parliament for an act extending the time for the construction of the 200 miles westerly from the present terminus at Miniota, Man., authorized by chap. 124 of the statutes of 1903.

Lethbridge Station.—The station under construction at Lethbridge, Alta., will be a well-arranged and commodious two-storey building. The main floor only will be completed at present, the upper one being left undivided. The foundations will be two ft. thick, and a cellar will be constructed under the general waiting-room, its dimensions being 28 ft. by 23 ft. 2 in., by 6½ ft. high. The building will be of stone and brick, and roofed with cedar shingles. The building will be 112 by 32 ft., with bay windows on either side. On the ground floor there will be C.P.R. ticket office, 18 by 14 ft.; Alberta Ry. and Irrigation Co.'s ticket office, 15 by 18 ft., with conductors' room; operators' room, 15½ by 10 ft.; ladies' waiting room, 21½ by 19½ ft., with lavatory, 10 by 10 ft.; general waiting-room, 25½ ft. by 30 ft., including lavatory, 10 by 10 ft.; express room, and baggage room, each 18 by 30 ft. The contractors are Smith, Bond and Wilson, Lethbridge, and the cost of the building is estimated at $20,000. The new station is expected to be occupied by Feb. 15.

British Columbia Southern Ry.—Application will be made next session of the Dominion Parliament for an extension of time for the construction of the line between Fort Steele and Golden, B.C., and the branch lines therefrom.

Columbia and Kootenay Ry. and Navigation Co.—Application will be made next session of the Dominion Parliament for an act extending the time within which the lines and branches authorized may be constructed.

Nakusp and Slocan Ry.—The Dominion Parliament will be asked next session to pass an act extending the time for the completion of the lines authorized.

Kootenay and Arrowhead Ry.—The passing of an act granting an extension of time for the construction of the lines authorized will be asked for next session of the Dominion Parliament.

New Westminster to Vancouver.—An extension of time will be asked next session of the Dominion Parliament for the construction of the line authorized from New Westminster to Vancouver, B.C.

Vancouver and Lulu Island Ry.—The Dominion Parliament will be asked next session to pass an act extending the time for the construction of the lines and branches authorized. There has been constructed under the act a line from Vancouver to Steveston, which is now being operated as an electric line by the British Columbia Electric Ry. under a lease.

The Michigan Central Rd. has reduced its passenger rates between Detroit and Toledo, in order to meet the competition of the electric railway between those points. The M.C.R. issues a two-trip ticket for $1.50, which can be used by one person for a return trip, or by two persons for a single trip. The former rate was $1.30 single fare.

The question of the consolidation and revision of the railway acts in force has been under consideration by the Ontario Government, and with a view of ascertaining the opinions of interested parties, a conference was arranged. This was held at Toronto, Dec. 5 to 8, inclusive, Hon. J. S. Hendrie, Minister without portfolio, presiding. The conference was attended by representatives of the C.P.R., Michigan Central Rd., Algoma Central and Hudson Bay Ry., James Bay Ry., Toronto Ry., Toronto and York Radial Ry., Hamilton, Grimsby and Beamsville Electric Ry., Cataract Light, Power and Traction Co., Hamilton; a number of other companies, and representatives of the cities of Toronto and Hamilton, as well as of municipalities through, out the Province. A large number of questions were discussed, including the appointment of a commission to deal with electric railway questions. The information gathered at the conference will be given full consideration by the members present, and will be fully discussed by the Government prior to any legislation being introduced.

MAINLY ABOUT PEOPLE.

C. E. Esplin, civil engineer, formerly of Ottawa, died at Winnipeg, Man., Dec. 5.

G. E. Fauquier, railway contractor, was married at Ottawa, Dec. 6, to Miss J. M. Gilmour.

W. Mackenzie, President Canadian Northern Ry., returned to Toronto Dec. 12 from England.

T. B. Burk, who was engaged in railway contracting in Canada in the early '70's, died at Montreal, Dec. 13.

W. D. Reid, Vice-President Reid-Newfoundland Co., and family, are spending the winter at the Windsor Hotel, Montreal.

F. Grundy, Vice-President Quebec Central Ry., has been re-elected a director of the Eastern Townships Bank, Sherbrooke, Que.

Norman Neilson, eldest son of M. Neilson, Consulting Engineer Montreal St. Ry., died in Montreal Dec. 16, aged 16, of appendicitis.

E. T. Galt, President Alberta Ry. and Irrigation Co., is in London, Eng., and is not expected to return to Canada until the spring.

W. H. Smith, Manager Canada Atlantic Transit Co., has removed his office from Ottawa to the Board of Trade Building, Montreal.

J. Niblock, C.P.R. Superintendent, Calgary, Alta., has a fruit orchard in the Okanagan Valley, B.C., which he was visiting recently.

J. W. Hopkins, architect, who died in Montreal, Dec. 11, aged 81, was father of F. H. Hopkins, of F. H. Hopkins & Co., Montreal.

H. Emmerson, jr., son of the Minister of Railways and Canals, will, it is announced, be married to Miss M. P. Price, of Parrsboro, N.S., in the near future.

E. A. Evans, General Manager Quebec Ry., Light and Power Co., who had his left thumb badly bitten by a dog some weeks ago, has thoroughly recovered from the effects.

S. N. Parent, Chairman Transcontinental Ry. Commission, has resigned his position as President Quebec Bridge Co., but the directors decline to take any action in regard thereto.

G. Ham, of the C.P.R. headquarter staff, was entertained at dinner at the Canada Club, Montreal, Dec. 13, on his return to duty after a lengthened absence through ill health.

W. F. Egg, formerly C.P.R. City Passenger Agent at Montreal, has considerably improved in health and is now employed in the company's general passenger department in Montreal.

Lord Strathcona was delayed by illness from sailing from England, Dec. 16. He had recovered sufficiently to leave by a later steamer, and was expected to reach Montreal, Dec. 31.

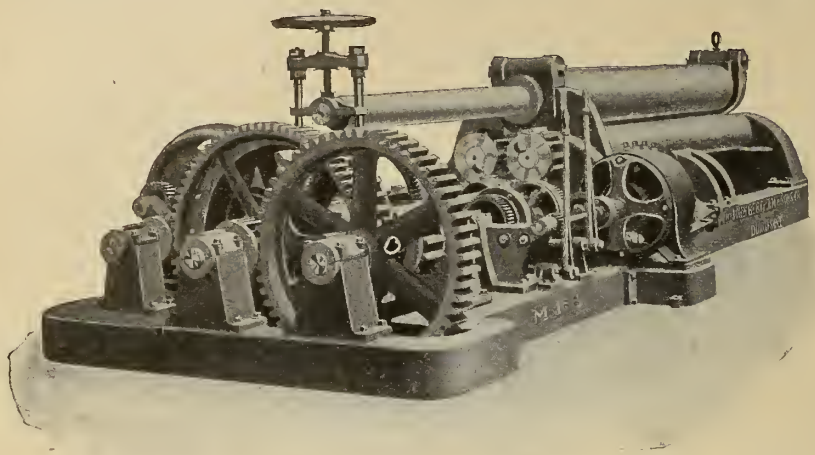
G. B. Mitchell, an assistant engineer in the C.P.R. service at Montreal, has been appointed Superintendent of Buildings, New York, New Haven and Hartford Rd., New Haven, Conn.

D. J. O'Connor, who recently resigned his position as chief Dispatcher, G.T.R., Stratford, Ont., has taken up his residence in Toronto, in connection with a fraternal assurance organization.

J. H. Walsh, General Manager Quebec Central Ry., has returned to Sherbrooke, Que., from London, Eng., where he had been conferring with the directors in regard to the duties of his new office.

J. P. Pim, Ottawa, who arrived at Kenora, Ont., to take charge of a survey party on the Eastern Division, G.T. Pacific Ry., Dec. 8,

BERTRAM PLATE-BENDING ROLLS



MOTOR DRIVEN

These machines are built in four sizes for plates from 12 feet wide, 1¼ inches thick, to 16 feet wide and 1 inch thick. The rolls are arranged in pyramid form and driven by a motor with reversing mechanism. The top roll is raised and lowered by an independent motor. The rolls and hoisting mechanism are steel throughout, and the machine has strength and power to bend plate full width between the housings to a complete circle in from one to three passes.

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One of the best fishing and hunting districts in America.
Unlimited attractions for the camper, canoeist and sportsman.
Black Bass, Speckled Trout, Lake Trout, Wall-eyed Pike, Common Pike and other species of fish in abundance.
Moose, Deer and Partridge abound in the forests of this peerless region.
Magnificent scenery and attractive canoe trips.
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WORKS AND OFFICE

91 Delorimier Ave., Montreal, P.Q.

was found dead in his bedroom at the hotel on the following morning.

J. M. Herbert, formerly in the G.T.R. service, has been elected First Vice-President Colorado and Southern Rd., with office in New York. He had previously been General Manager at Denver, Colo.

T. H. White, who has been appointed Chief Engineer of the James Bay and the Great Northern Railways, and Mrs. White, have removed from Bridgewater, N.S., to Toronto, where they are staying at the Queen's Hotel.

A. Piers, Manager C.P.R. Atlantic steamers, and Mrs. Piers, returned to Montreal early in Dec. from Great Britain, where they had been in connection with the launching of the company's new steamer Empress of Britain.

W. H. Breithaupt, C.E., Berlin, Ont., read a paper on "The Grand River, Ontario Peninsula, effect of Deforestation and Swamp Drainage," at the meeting of the General Section Canadian Society of Civil Engineers at Montreal, Dec. 14.

W. Thompson, G.T.R. Freight Agent, Kingston, Ont., was presented with an address and a purse of $200 in gold by the citizens · a gold-headed cane and an umbrella by the transportation officials, on leaving to take a similar position at Ottawa.

J. D. Hunter, for 20 years General Freight Agent for Ontario, Allan Line, Toronto, died there Dec. 9, aged 57. For a number of years he was connected with the freight department of the Toronto, Grey and Bruce Ry., and subsequently with the G.T.R.

Lieut.-Col. Gourdeau, Deputy Minister of Marine, has been given the cross of the Legion of Honor by the French Government, in recognition of his services as Canadian Commissioner to the Paris Exhibition, and his services to French sailors wrecked off Sable Island.

C. E. Slayton, formerly Master Mechanic of the Sydney and Louisburg Ry., and of the Algoma Central Ry., who was recently appointed Master Mechanic of the Deepwater Ry., has also been given charge of train and transportation service thereon. His office is at Page, Fayette County, W. Va.

E. F. Tremayne, Registrar of the C.P.R., London, Eng., was born there July 7, 1862, and received his education at the Grammar School, Brentwood, Essex. After a few years' experience in the city he entered the C.P.R. service, Feb. 9, 1884, and was continuously in the Transfer office until appointed Registrar, July, 1905.

The Muskoka Lakes Summer Resort Keepers' Association, is raising a fund to erect a public memorial at Port Carling, Ont., or other convenient point to the late A. P. Cockburn, who was a pioneer of navigation on the Muskoka Lakes, and for many years associated with the Muskoka Lakes Navigation and Hotel Co., and its predecessors. H. Prowse, of Beaumaris, Ont., is treasurer of the fund.

W. J. Spicer, who died at Detroit, Mich., Dec, 10, and whose body was buried at Montreal, Dec. 14, was for many years connected with the G.T.R. in Canada and the U.S. He came to Canada in 1853, and was freight agent at Hamilton for the old Great Western Ry., becoming Superintendent on the G.T.R. in 1861, and in 1884 he was appointed General Manager of the G.T.R. lines west of Detroit and the St. Clair River. He retired in 1895, and has since acted for the G.T.R. as a director of its subsidiary companies in the U.S.

There is no truth in the press reports that Hon. A. G. Blair, ex-Chairman of the Board of Railway Commissioners, has been appointed as one of the permanent counsel of the C.P.R. He has commenced the practice of law in Ottawa and will devote himself almost entirely to counsel work. It is understood that he will receive briefs for the C.P.R. in some of its important cases, and that he has a retaining fee from that company. It is probable that he will be engaged in a very considerable number of cases for the company, as there is certain to be very important work before the railway commission during the next few years.

L. J. Seargeant, director of the G.T.R., who died in London, Eng., Nov. 28, aged 80, was from 1874 to 1896 associated with the operation of the company's lines, and prior to that was connected with various lines in South Wales and the south-west of England which were amalgamated with the Great Western Ry. of England. He was appointed Traffic Manager of the G.T.R.—the first appointment of the kind on the continent—soon after coming to Canada, and Vice-President Chicago and Grand Trunk Ry. In 1890 was appointed General Manager in succession to Sir Joseph Hickson, and became President Chicago and Grand Trunk Ry. On the reorganization of the board in 1896 under Sir Charles Rivers-Wilson, Mr. Seargeant retired and was appointed a director.

H. H. Vaughan, who has been appointed assistant to the Vice-President C.P.R., is a native of England and was educated at King's College, London, Eng., and served an apprenticeship with Naysmith, Wilson & Co., Particroft, Manchester, Eng., going to the U.S. in 1891. He worked for various companies as machinist, draughtsman and assistant engineer of tests and mechanical engineer, including the Great Northern Ry., the Philadelphia and Reading Rd., and the Queen and Crescent Route, and after a period of service with a supply house, was appointed Assistant Superintendent of Motive Power, Lake Shore and Michigan Southern Rd., Mar., 1902, remaining there until Feb., 1904, when he was appointed Superintendent Motive Power, C.P.R., which position he held until his present appointment.

President W. S. Stout of the Dominion Express Co. has issued the following circular: "Samuel T. Stewart, who died at Vancouver, B.C., on Dec. 22, after a short illness, was born on a farm near Huntsville, Logan County, Ohio, August 13, 1846, and entered the express business in 1867, filling various positions of trust with the U.S. and American Express companies up to 1884, when he resigned to accept the agency, and established the first office for this company in Montreal. On Dec. 1 of the same year he was appointed Assistant-Superintendent, and in June 1889, Superintendent of the Eastern Division. On Sept. 1, 1903, he was appointed Superintendent of the Pacific Division, with headquarters at Vancouver, B.C. Combining a thorough knowledge of the express business with energy, patience, invariable courtesy, a genial disposition and readiness to assist others, he enjoyed the fullest confidence of his employers and the esteem of his employes. Happy, generous, kindly and affectionate in his home and family relations, his death will be sincerely mourned by all."

C. W. Spencer, Manager Mackenzie, Mann & Co.'s Eastern Lines, was presented with a silver salver, Dec. 8, by the principal officials of the C.P.R., on leaving that company's service. The presentation was made by the President, Sir Thos. G. Shaughnessy, who said: "It is always difficult for a man to sever his connection with his intimate associates, and it must have been particularly hard for you, Mr. Spencer, having been with the company in its infancy when it was struggling against great odds, but since you have chosen a new sphere, your fellow officers in presenting this gift and the good wishes it implies, extend to you the hope that the ability and energy you displayed while with the C.P.R. will be further exemplified in your new office. During your connection with the C.P.R. you won the confidence and goodwill of wide and varying interests, and I know of no one in the company's service who is held in greater respect by all, from the highest to the lowest." A bouquet of roses was sent to Mrs. Spencer. The employes of the Hull Electric Co., of which Mr. Spencer was Vice-President, gave him a gold locket on his leaving.

J. B. Morford, Assistant General Manager Michigan Central Rd., whose death at St. Thomas, Ont., Nov. 27, was mentioned in our last issue, was born at Warwick, Orange County, N.Y., July, 1840. He entered railway service as water boy on the New York and Erie Rd., now the Erie Rd., since which he has been consecutively: May, 1852, to Oct., 1853, despatch messenger between New York and Dunkirk, N.Y.; Oct., 1853, to Nov., 1857, passenger and freight brakeman, eastern division, same road; Nov., 1857, to Sept., 1866, passenger conductor, same road; Sept., 1866, to Jan., 1871, Chief Train Dispatcher, Morris and Essex Rd., now a part of the Delaware, Lackawanna and Western Rd.; Jan., 1871, to Jan., 1873, successively, general agent at 30th Street station, New York, and stationmaster, Grand Central station, New York Central and Hudson's River Rd.; Jan., 1873, to Feb., 1875, General Superintendent, Long Island Rd.; Feb., 1875, to Jan., 1882, successively Superintendent Sandy Hook Steamboat Co., and Superintendent lighterage and ferries, Central Rd., of New Jersey; Jan., 1882, to April, 1883, Superintendent of Construction, Sabine and East Texas Ry.; April, 1883, to Dec., 1883, Superintendent Eastern and Toledo division, Michigan Central Rd.; Dec., 1883, to Feb., 1904, Superintendent and General Superintendent Canadian division same road; being appointed Assistant General Manager, 1904.

Quebec Northern Ry.—The Quebec Legislature will be asked next session to pass an act incorporating a company with this title to construct a broad or narrow gauge railway from the Woodchuck rapids of the Bell River, near Obaska Lake, thence northerly to Mettagami Lake, in the district of Abitibi, Que., and to operate the same by steam, electricity or other motive power. Lachance and Ahern, Quebec, are solicitors for the promoters.

Merchants in Dawson, Yukon, are taking steps to have an investigation made into freight rates charged on the White Pass and Yukon Route. It is alleged that the rate to Dawson via the W.P. and Y.R. is $75 and $80 a ton, while U.S. merchants in Alaska get their freight at $35 and $40 a ton over a 2,000 mile sea voyage, and a 1,000 mile trip up stream.

The Terminal Warehouse and Cartage Co. has been incorporated under the Dominion Companies' Act, with a capital of $1,250,000 and offices at Montreal, to carry on a general warehousing and cartage business in Canada. The company has power to enter into contracts with railway, steamship and other companies. The provisional directors are: W. L. Bond, H. M. Marter, C. L. Buchanan, E. C. Chamberland, E. B. Forrest, Montreal.

NOTICE.—The Esquimalt and Nanaimo Railway Company will apply to the Parliament of Canada at its next session, for an Act extending the time for commencing and completing an extension of its main line to Comox, and to construct branches, and giving to the company general power to construct branch lines, and for other purposes.

W. F. SALSBURY,
Secretary.

7th December, 1905.

DO YOU SOMETIMES BUY MACHINERY?

Lathes, Planers, Drills, Millers or Grinders

Wood-working Machinery

Gas and Gasoline Engines, Stationary or Marine

Steam Engines and Boilers

or Supplies of any kind

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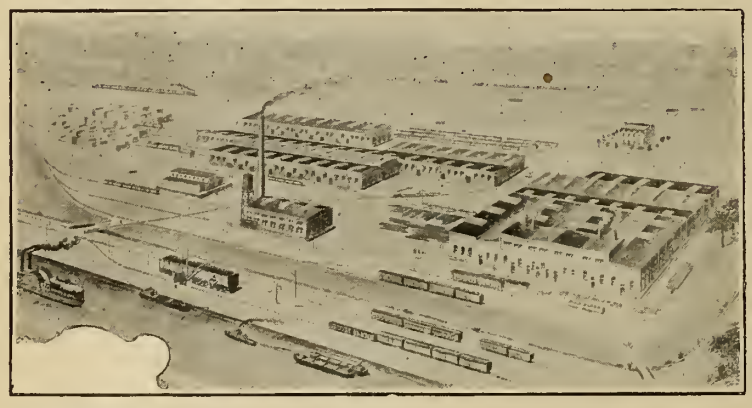
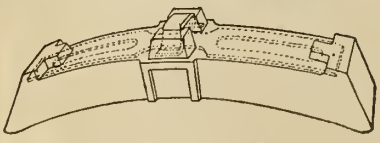
MONTREAL, QUE. LIMITED



Railway Freight and Passenger cars, both wood and steel, of all descriptions and styles; street cars, car wheels, castings, forgings, and all equipment necessary for car construction.

Capacity—7500 freight cars, 150 passenger coaches per year.

ORDERS SOLICITED

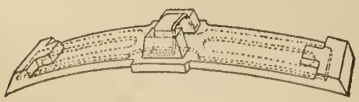


New, 25 Pounds

STEEL BACK CAR BRAKE SHOE

Can be applied to any type of shoe.

The Steel Back doubles the life of the shoe.



Scrap, 5 Pounds

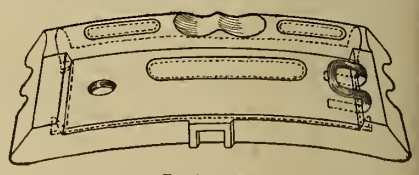
Steel Back Brake Shoe

ONLY SAFE SHOE FOR HIGH SPEED BRAKES

More dense and durable than common Cast Iron

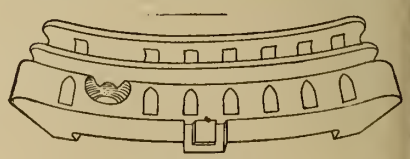
Perfecto Driver Brake Shoe

THE BEST SHOE FOR GENERAL LOCOMOTIVE SERVICE



Back View

PERFECTO DRIVER BRAKE SHOE



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Railway Finance, Meetings, etc.

Canadian Northern Ry.—Sperling & Co., London, Eng., recently offered for subscription £1,240,000 4% perpetual consolidated debenture stock of the C.N.R., bearing interest at 4%. The price of issue was 99%, payable £4% on application, £10% on allotment, £40% Jan. 5 and £44% Feb. 5. This stock is perpetual and irredeemable, and ranks in all respects with the 4% perpetual consolidated debenture stock now officially quoted on the London Stock Exchange. The prospectus states that the trust deed provides that the total amount of debenture stock shall not exceed £2,000 per mile of line for the time being open and operated, and an amount not exceeding the cost price of securities of independent corporations from time to time deposited with the trustees, but the company cannot issue any debenture stock against such securities without the consent of the trustees. The debenture stock is secured by a general charge upon the undertaking, property and assets (other than land and money subsidies) of the company, subject to the £1,180,600 of bonds primarily charged on the Ontario Division of the railway (287 miles), and to charges created, or to be created, not exceeding $10,000 per mile of line, other than the above-mentioned 287 miles of line in Ontario, or $15,000 per mile if guaranteed by the Parliament of the Dominion, or any of the Provinces, and is a specific first mortgage upon certain securities deposited with the trustees. The proceeds of the present issue are required for the general purposes of the company, and more particularly in connection with the equipment and maintenance of the extensions recently made and now in course of construction. It is officially stated in Toronto that the issue was entirely successful.

Chateauguay and Northern Ry.—An additional number of suits have been entered against the company for damages for alleged breach of agreement. The plaintiffs allege that at the time of the expropriation of their lands it was expressly set out that an electric road only was to be operated. Since the construction of the electric railway by the Montreal Terminal Ry., the C and N. Ry. has been constructed on a portion of the land acquired.

Cincinnati, Hamilton and Dayton Rd.—On Dec. 4, Judson Harmon was appointed receiver of the C., H. and D. Rd., and of the Pere Marquette Rd., on the petition of W. B. Horn, of New York. The petition alleges that while the C., H. and D. Rd. was solvent prior to July 7, 1904, it has since assumed such obligations as to cripple it, particularly the purchase of the Pere Marquette stock for $12,000,000, the agreement between the C., H. and D. and Pere Marquette and the Toledo Ry. and Terminal Co., which involved large obligations for terminals in Toledo, and an agreement to carry $3,500,000 bonds issued by the P.M. Rd. to cover that company's purchase of the Chicago, Cincinnati and Louisville Rd. It is further asserted that the cash assets of the C., H. and D., and P.M. Rds. on Dec. 2, 1905, wereless than $100,000, although the interest on the P.M. bonds mentioned above is due on Jan. 1, 1906.

The C., H. and D. Rd. was a consolidation formed in 1895, of the Cincinnati, Hamilton and Dayton Rd., the Cincinnati, Dayton and Ironton Rd., and the Cincinnati, Dayton and Chicago Rd.; and the Pere Marquette Rd., was organized in 1899 for the purpose of consolidating the Flint and Pere Marquette Rd., the Detroit, Grand Rapids and Western Rd., and the Chicago and West Michigan Rd. Other lines were subsequently acquired by the P.M., including the Lake Erie and Detroit River Ry., with its leased line the London and Port Stanley Ry., in Canada, and by an agreement rights were secured over the Michigan Central Rd.'s Canada Southern Ry., giving an entrance to Buffalo, N.Y. In July, 1904, the C., H. and D. acquired control of the P.M. Rd., through the purchase of 11/16 of its common stock, and in Mar., 1905, obtained a lease of the line for 999 years, assuming all its obligations, and to pay as rental 4% dividends on its $12,000,000 preferred stock, and 5% on its $16,000,000 of common stock. The total mileage owned is 3,099 miles, and 3,668 miles are operated. In Sept., 1905, the directors of the Erie Rd., authorized the purchase of the C., H. and D. Ry., and a majority of the stock was acquired by J. P. Morgan & Co., through H. B. Hollins & Co., at a price stated to have run up to $160 a share. The purchase money was provided by $12,000,000 of Erie bonds, which were afterwards released, on the Erie shareholders expressing dissatisfaction with the bargain, and J. P. Morgan & Co. assumed the purchase, G. W. Perkins, one of the partners, being appointed President of the C., H. and D., and the P.M., respectively.

The Canadian Exchequer Court has appointed Judson Harmon as receiver for the lines operated in Canada, upon the petition of W. B. Horn.

There have been many reports as to what will be the outcome of the receivership, so far as the Canadian lines are concerned, the most persistent being that the agreement with the Michigan Central Rd. will be broken, and the Lake Erie and Detroit River Ry. allowed to revert to its former owners—the Walkers. Another report states that the Canadian lines will be sold to the C.P.R.

Columbia and Red Mountain Ry.—Following are the officers and directors for the current year:—President, H. A. Kennedy; Vice-President, M. J. Gordon; Secretary, W. H. Fortier; other directors: L. W. Hill, R. C. Morgan; Treasurer, E. Sawyer.

Grand Trunk Ry.—The Hon. N. C. Rothschild has been elected a director to succeed the late L. J. Seargeant.

Intercolonial Ry.—A statement has been published at Ottawa to the effect that the earnings of the I.C.R. for the first four months of the current financial year were $2,638,508, and the expenditure $2,697,509.

Qu'Appelle, Long Lake and Saskatchewan Ry.—Net earnings for Oct., $37,492.84, against net earnings of $5,191.98 for Oct., 1904.

Quebec Central Ry.—Application will be made next session of the Quebec Legislature for an act giving power among other things, to issue bonds or other securities upon a branch line to be constructed, such bonds to take precedence over previous securities of the company, so far as the branch line is concerned; and to empower the directors to deal as they think proper with the shares of the capital stock of the company, declared to belong to it by a judgment of the Quebec Superior Courts of Mar. 14, 1903.

Quebec Southern Ry.—It has been officially announced that the bid of Senator Beique, accepted for the purchase of the railways operated as the Q.S. Ry. by the Exchequer Court, was for the Delaware and Hudson Rd. The G.T.R., and another bidder object to the sale being ratified on the ground that the other bids put in would secure a larger return to the creditors than the one accepted.

Temiscouata Ry.—The report submitted at the annual meeting showed earnings of $145,321.31, and operating expenses, $130,377.61, leaving net income of $14,943.70. Following are officers and directors for the current year: President, F. Grundy; Vice-President, J. H. Walsh; other directors: W. Cook, K.C.; A. H. Cook, K.C.; A. Laurie, W. N. Campbell; Secretary and General Manager, D. B. Lindsay; Superintendent and Engineer, G. G. Grundy.

Toronto, Hamilton and Buffalo Ry.—Earnings for Nov., $63,102.70, against $58,221.65 for Nov., 1904.

G.T.R. Betterments, Construction, Etc.

Track Elevation at Montreal.—An intimation has been given to the Board of Railway Commissioners to the effect that the company's officers have under consideration the provision of a new station and the carrying out of extensive improvements at Montreal. It is stated that the improvements include the building of a new passenger station opposite the Bonaventure Station, on the north side of St. James St., the conversion of the present station into a freight depot, and the elevation of the tracks from the new station almost to Lachine. The estimated cost of the works is placed at $6,000,000. The plans have not been completed.

Turcot Yards, Etc.—The new roundhouse at Turcot, Que., has been completed and work on the laying out of the yard there is in progress.

Toronto Improvements.—The Level Crossings Committee of the Toronto City Council has expressed a general approval of the company's plans for the abolishing of level crossings on the line. The plans submitted provide for the depression of the tracks from Bathurst St. to Sunnyside, and the construction of a viaduct from Sunnyside to the Humber. The estimated cost of this work is $1,050,000. There has also been discussed a project for the elevation of the tracks in the east end of the city, and the bringing of all trains on a viaduct along the lake shore from Scarboro bluffs. The one work will be the complement of the other, and a statement was made at the meeting with the committee that the plans only awaited the approval of the directors and the providing of the money to carry them out.

Mimico Yards.—The work of laying out the new yards at Mimico, Ont., on the Toronto-Hamilton line has been practically completed, so far as the present plans go. There are, however, some further work to be done, for which plans have not been finally approved. The 30-stall roundhouse described in our Aug., 1905, issue, has been completed, but it is not yet being used. There are two tracks in the yard, one for eastbound and the other for westbound freight. In each yard there are four receiving tracks and eight sorting or distributing tracks. The work of laying out the yard is being done by the company under the charge of F. L. Somerville, Resident Engineer, Toronto, and his staff. (Aug., 1905, pg. 363).

Hamilton.—A new 22-stall roundhouse has been built at Stuart St. Station, Hamilton, Ont.

Sarnia Tunnel.—In reference to press reports that a contract has been awarded for electric locomotives, power houses, etc., for the operation of trains through this tunnel by electricity we were advised, Dec. 18, that there had been no change in the situation, and that the matter was still under consideration.

Battle Creek Shops.—We have been advised that it is not possible to state when work will be started on the new shops at Battle Creek, Mich., as the plans and specifications are still under consideration.

Application will be made next session of the Dominion Parliament for an act incorporating a company with the title of the Grand Trunk Pacific Telegraph Co., for the purpose of constructing, acquiring or leasing any overhead, underground, wireless or cable lines, telegraph or telephone from and to any places in Canada or elsewhere; to make connection with any telegraph or telephone lines, including cables, and any system of wireless telegraphy now or hereafter in use in Canada, or lease its lines or any part. The company will also ask for various powers which are usually given to telegraph and telephone companies. The notice is signed by W. H. Biggar, K.C., solicitor for the G.T.R.

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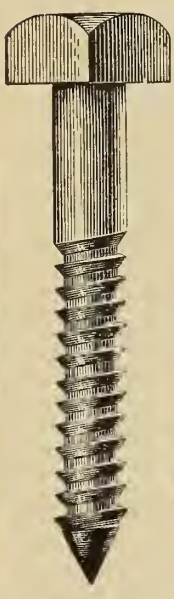

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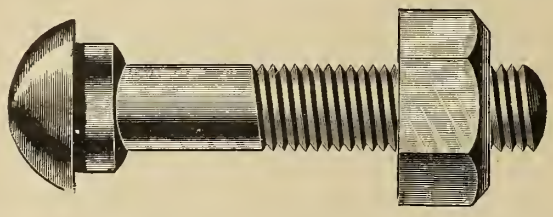

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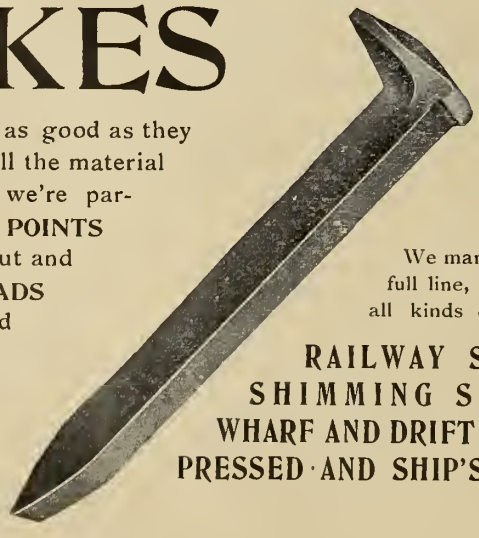

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Work of the Railway Commission.

After hearing a number of cases at Ottawa, a noticeable one being the application of the Bell Telephone Co. for approval of standard specifications and conditions under which it should be allowed to carry wires and cables across the tracks of railway companies, the Railway Commissioners started on a tour of Western Ontario, Dec. 4. Sittings were held at Stratford on Dec. 4 and 5, when a number of cases connected with the Guelph and Goderich Ry., the G.T.R. branch lines and the electric railways at Guelph, Berlin and Waterloo, were dealt with. The Commissioners sat next at Sarnia, Dec. 6, when in addition to some crossing cases, evidence was taken in regard to the new regulations for shipping lumber, and the car shortage at the elevator. Chatham was the next point visited, the Commissioners remaining there over Dec. 7, and hearing evidence in regard to the crossings of the Chatham, Wallaceburg and Lake Erie Ry., over the G.T.R. in Chatham, and the Pere Marquette Rd., near Wallaceburg. Some drainage matters were also considered and a hearing was given to a deputation in regard to rates on beans, about which orders have recently been issued. At Windsor, on Dec. 8, questions of alleged discrimination in rates were brought forward by Windsor and Walkerville shippers, who stated that shippers in Detroit and the U.S. were favored. The Commissioners returned east, Dec. 8, visiting Paris on the way to look into some matters requiring attention there, and held sessions in Toronto, Dec. 11 and 12, when consideration was given to recommendations of the Canadain Manufacturers' Association regarding freight rates. On Dec. 14 the Commissioners opened a session at Montreal when several complaints of the Canadian Manufacturers' Association respecting Canadian Freight Classification no. 12, were heard.

Orders by the Railway Commissioners.

The following orders have been issued by the Board of Railway Commissioners in addition to those enumerated on page 11.

No. 802. Nov. 20.—Authorizing the Guelph and Goderich Ry. to construct an overhead crossing of the G.T.R. in Goderich, Ont.

No. 803. Dec 13.—Authorizing F. I. Whitney, Passenger Traffic Manager, Vancouver, Victoria and Eastern Ry. and Navigation Co., to prepare and issue tariffs of tolls to be charged under the Railway Act, 1903, sec. 251.

No. 804 and 805. Dec. 13.—Authorizing the Ontario Pipe Line Co. to carry its pipes under the tracks of the Toronto, Hamilton and Buffalo Ry. on Wellington St., and Sherman Ave., Hamilton, respectively.

No. 806. Dec. 12.—Authorizing the South Malahide Telephone Co. to carry its wires over the tracks of the Michigan Central Rd., at Aylmer, Ont.

No. 807. Dec. 11.—Authorizing the South Malahide Telephone Co. to carry its telephone lines across the Michigan Central Rd., near Aylmer, Ont.

No. 808. Nov. 8.—Authorizing the Waterloo, Ont., Town Council to extend John St. across the G.T.R.

No. 809. Nov. 24.—Granting permission to the C.P.R. to construct two additional tracks across Jane St., Toronto Jct., Ont.

No. 810. and 811. Dec. 13—Authorizing the James Bay Ry. location through North Orillia tp., and Matchedash tp., Simcoe county, Ont.

No. 812. Nov. 14.—Authorizing the Brandon, Saskatchewan and Hudson's Bay Ry. to cross the tracks of the Canadian Northern Ry. in sec. 31, tp. 1, range 18, w.p.m., municipality of Turtle Mountain, Man.

Nov. 813. Dec. 13—Amending the order of Dec. 1, 1903, authorizing the Ontario Power Co. of Niagara Falls to carry its power wires over the G.T.R. tracks.

No. 814. Dec. 13.—Authorizing the C.P.R. to construct a branch line to the West Canadian Collieries, sec. 20, tp. 7, range 3, w.p.m.

No. 815. Dec. 13.—Authorizing the C.P.R. to construct a branch line to St. Croix Soap Works, St. Stephen, N.B.

No. 816. Dec. 13.—Granting permission to the Dominion Natural Gas Co., to carry its mains under the G.T.R. at six points in Brantford tp., Brant county, Ont., on conditions named.

No. 817.—Granting permission to the Provincial Natural Gas and Fuel Co. to carry its mains under the G.T.R. at five points in Humberstone tp., Welland county, Ont., on terms and conditions named.

No. 818. Dec. 13.—Authorizing the Morrissey, Fernie and Michel Ry. to operate its interlocking plant where it crosses the C.P.R. in Rossland, B.C.

No. 819. Dec. 16.—Authorizing the C.P.R. Co. to connect with the Red Mountain Ry. at Rossland, B.C.

No. 820. Dec. 13.—Authorizing the C.P.R. to construct a branch line in Rossland, B.C., to connect with the Red Mountain Ry.

No. 821. Dec. 15.—Directing that the cost of constructing and maintaining the connection authorized by order 820 be borne by the C.P.R.

No. 822. Dec. 13.—Authorizing Dr. R. E. Darling and J. S. Todd, Goodwood, Ont., to carry four telephone wires across the G.T.R. at five points in Uxbridge and Whitchurch tps., Ontario and York counties, Ont., on conditions named.

No. 823. Dec. 13.—Approving, under section 235, of certain forms of the Kingston and Pembroke Ry.

No. 824. Dec. 15.—Authorizing the St. Catharines, Ont., City Council to carry a sewer-pipe under the G.T.R. 1,300 ft. east of Vine St., on conditions named.

No. 825. Dec. 11.—Authorizing the Hamilton Radial Ry. to cross the tracks of the Toronto, Hamilton and Buffalo Ry. in Barton tp., Wentworth county, Ont.

No. 826. Dec. 18.—Authorizing the Ontario Power Co., of Niagara Falls to cross with its power wires the Niagara Falls Park and River Ry. on lot 1, Stamford tp., Lincoln county, Ont.

No. 827. Dec. 19.—Approving plans for bridges over the Welland Canal at Port Colborne, and over the Welland Canal feeder at Stormness, Ont., for the G.T.R.

No. 828. Dec. 19.—Approving plans for substructure of a bridge over the Muskoka River, Ont., for the C.P.R.

No. 829. Dec. 19.—Sanctioning the construction of a bridge across the outlet of the Muskoka River, Ont., for the C.P.R.

No. 830. Dec. 19.—Authorizing the G.T.R. to construct a branch line to the premises of R. J. Graham, Belleville, Ont.

No. 831. Dec. 19.—Granting permission to the Lincoln Electric Light and Power Co., to carry electric power wires across the G.T.R. at Westchester Ave., St. Catharines, Ont., upon conditions named.

No. 832. Dec. 20.—Authorizing the Brandon, Saskatchewan and Hudson's Bay Ry., to construct its line across certain highways in the municipality of Turtle Mountain, Man.

No. 833. Dec. 20.—Sanctioning the location plans of the Toronto and Niagara Power Co. through Pelham tp., Welland county, and Gainsborough and Caistor tps., Lincoln county, Ont.

The Niagara Navigation Co.'s new steamer is expected to be launched at Toronto about the end of Jan. She will be named the Cayuga.

We have been officially advised that there is no truth whatever in the press reports that the C.P.R. is building another steamship for its trans-Pacific trade.

Grand Trunk Pacific Railway.

The engineers in charge of sections of construction on the Prairie East Division, from Portage la Prairie, Man., to the Touchwood Hills, include in addition to those mentioned in a previous issue, the following:—Under H. B. Roe, Assistant Engineer: F. E. Healy, Crandall; P. H. Lazenby, Birtle; W. Harrison, Tantallon; J. S. King, Esterhazy; A. J. Gayfer, Grayson. T. A. McLean, Kilally; G. S. Macpherson, Lipton, were on section three, and their work for the season has been completed. No further contracts have been let for construction, but it is said that a section of the line between Touchwood Hills and Edmonton will be placed under contract during the next few weeks, and it is expected that the line between Portage la Prairie and Edmonton will be finished by the fall of 1907.

President C. M. Hays is reported as stating that no choice of a western terminus had been officially made, that land had been secured in three different locations, but that an official announcement would not be made until all the surveys for the line had been completed.

A semi-official announcement at Ottawa says it is expected that contracts for parts of the transcontinental line eastward from Winnipeg and westward from Quebec will be let in January. The surveys, which are nearly completed, have shown that the maximum grade eastward between Winnipeg and Quebec will not exceed 4-10 of 1%. Westward between the same points 6-10 of 1% will be the maximum. The line will pass to the north of Lake Abitibi, which is better timbered and adapted for settlement than the region to the south. The surveys in New Brunswick to test the merits of the rival river and central routes are reported to have been suspended owing to transportation difficulties. They will be resumed as soon as the snow is settled, and it is expected a decision will be reached and possibly contracts for construction let before spring.

Elgin and Havelock Ry.—Following are the officers and directors for the current year: President, R. E. Harris; other directors: B. F. Pearson, C. H. Cahan; Secretary-Treasurer, H. B. Stairs, all of Halifax, N.S.; General Manager, P. S. Archibald, Moncton, N.B.; Superintendent, A. H. Robinson, Petitcodiac, N.B.

Canadian Ticket Agents' Association.—Secretary de la Hooke has issued his annual circular to the members, inviting payment of the annual fee, and urging that a special effort be made to increase the membership to 300 to commemorate the 20th year of the Association's existence. The executive committee will meet at an early date to decide on the place and time for the next annual convention. Invitations have been received from Mobile, Milwaukee, and Denver, and each member is asked to intimate to the Secretary which place he favors, for the guidance of the committee. Detroit will probably be the place of assembling, whichever place may be selected for the convention. President Bunton has also issued a circular to the members, emphasizing the suggestion that the membership list be increased, suggesting that the ladies of the party attend the annual dinners in future, and that the constitution be changed so that assistant general passenger agents, district passenger agents and travelling passenger agents may be eligible for membership.

The Canadian Society of Civil Engineers will hold its annual meeting in Toronto during the fourth week in Jan.

C. E. Lambert, General Passenger Agent West Shore Rd., who has been seriously ill for some time, left New York a few days before Christmas on General Manager Smith's private car, for Florida.

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Late Miscellaneous Items.

L. R. Johnson, Assistant Superintendent of Motive Power, C.P.R. Eastern Lines, Montreal, will for the future have charge of the Angus Locomotive shops, the design and construction of motive power as well as the specification and inspection of all material for the Motive Power Department.

The Turret Bell Co. has been incorporated under the Dominion Companies' Act, with a capital of $200,000 and offices in Toronto, to build or otherwise acquire steam and other vessels, to carry on a general navigation business, to own and construct docks, and to carry on any other business that may be conveniently carried on in connection therewith. The provisional directors are G. G. Ruel, R. P. Ormsby, G. F. Macdonnell, F. C. Annesley, L. W. Mitchell, all connected with Mackenzie, Mann & Co.'s offices, Toronto.

Hon. R. Prefontaine, Minister of Marine, died suddenly in Paris, France, on the evening of Dec. 25, of angina pectoris. He left Montreal at the end of Nov. to visit England and France on departmental business. One of the objects of his visit to France was to discuss the establishment of a steamship line between Canada and Marseilles. The body will be brought to Montreal for burial, the British Government having assigned the battleship Dominion to carry it across the Atlantic. Prior to becoming Minister of Marine in 1903, Mr. Prefontaine had been Mayor of Montreal.

The appointment of C. E. Benjamin as General Agent Passenger Department C.P.R. Atlantic Service, at Chicago, is owing to the fact that with the addition of the Empress of Britain and the Empress of Ireland to the fleet, which will be made shortly, it was deemed necessary to have an official in the Chicago district to devote his undivided attention to Atlantic steamship business. A. C. Shaw being relieved of the steamship department can now devote his whole attention to railway business. His district is very large and populous and requires strenuous work in looking after it.

The Quebec Transport Co. has a capital of $100,000, divided into 1,000 shares of $100 each. The company has entered into an agreement with the Quebec Harbor Commissioners to operate a fortnightly service of ocean steamers making Quebec their terminal point in Canada. It has been granted special privileges, including free harbor dues on the steamers, and berthing facilities in the Louise Basin. As the Louise Basin is a tidal dock steamers can enter or leave at any state of the tide, night or day, and in it the largest steamers coming to the St. Lawrence can load full cargoes to a draft of 30 ft. at any time during the season of navigation.

E. S. M. Lovelace, who has been appointed Assistant Engineer G.T.R., Hamilton, Ont., was born at Montreal, April 3, 1866, and completed his education at McGill University, graduating 1888, with honors and the British Association's gold medal in the advanced course of civil engineering. He entered railway service in 1886, serving that year as leveller on the Great Northern Ry. surveys, during 1887 as transitman, Montreal and Lake Maskinonge Ry.; 1888 to 1892, assistant on second track construction G.T.R. between Montreal and Toronto; 1892 to 1901, on survey for a proposed electric railway between St. Louis, Mo., and Chicago, Ill., in charge of architectural iron work for a Montreal firm and as consulting engineer; 1901 to 1904, assistant engineer in charge of surveys and construction second track work on G.T.R., between Newtonville and Oshawa, Ont.; 1904 to Dec. 1, 1905, assistant engineer in charge of construction second track work, Hamilton to Lynden, Ont.; and between Hyde Park and Kingscourt Jct., Ont., G.T.R. In his new position he has charge of new construction on lines west and north of Toronto.

Brandon Transfer Ry.—Members of the Brandon, Man., Board of Trade, propose applying next session of the Dominion Parliament for an Act to incorporate a company to construct a transfer railway to operate in the city between the different railways.

Yonge Street Bridge, Toronto.—Judgment has been given in the action brought by the C.P.R. and the G.T.R for a declaration to vary the order of the Railway Committee of the Privy Council (since superseded by the Board of Railway Commissioners) and the Order-in-Council subsequently directing them to defray the cost of a bridge over the railway tracks at the foot of Yonge St., Toronto. The court has decided that the bridge must be built at the joint cost of the two companies as directed by the original order, but that the Order-in-Council altering the date when the bridge was to be built was improperly made, neither of the interested parties having applied for it. A new order must be obtained, and on the city obtaining this, Judge Anglin states that the action will be dismissed. No order has, in the meantime, been made as to costs.

ELECTRIC RAILWAYS.

Canadian Street Railway Association.

The quarterly meeting was held at St. Catharines, Ont., Dec. 14, those present being W. H. Moore, Manager Toronto and York Radial Ry., and Assistant to President Toronto Ry.; E. A. Evans, General Manager Quebec Ry., Light and Power Co.; Allan Royce, Vice-President, G. C. Royce, Manager Toronto Suburban Ry.; E. F. Seixas, General Manager, C. E. A. Goldman, Secretary, D. J. McIntosh, Accountant, Niagara, St. Catharines and Toronto Ry.; J. A. Hutchinson, Superintendent Ottawa Electric Ry.; C. K. Green, Traction Manager Hamilton Cataract Power, Light and Traction Co.; E. W. Rathbun, President Oshawa Ry.; A. D. Grantham, Purchasing Agent Toronto Ry.; J. C. Rothery, Superintendent Niagara Falls Division, International Ry.; Harold Robinson, Vice-President, H. H. Hopper, Accountant, St. John (N.B.) Ry.; S. Ritter Ickes, Treasurer, Grand Valley Ry.; P. Dubee, Secretary, W. H. Chapman, Superintendent of Construction, G. Boyer, Assistant Superintendent of Construction, Montreal St. Ry.; C. B. King, General Manager London Electric Ry.; J. Milne, Superintendent British Columbia Electric Ry.; and Acton Burrows, Publisher of THE RAILWAY AND MARINE WORLD, the official organ of the Association.

The chair was taken by the Vice-President, W. H. Moore, who expressed regret at the absence of President W. G. Ross. This was the first meeting Mr. Ross had failed to attend and he would have been present but for pressing and important business requiring his attendance elsewhere. He also expressed regret that since the last meeting C. E. A. Carr, formerly Manager of the London Electric Street Ry., had removed from Canada to take the management of an important street railway and electric enterprise in Helena, Montana. Mr. Carr was an enthusiastic member of the Association and his counsel would be missed by the executive committee of which he was a member. He also referred to the session recently held by a committee of the Ontario Legislature to receive suggestions from the electric railway companies and municipalities as to legislation required. He thought it but fair that the Ontario Government should be accorded praise for the opportunity afforded the companies to express their views.

The executive committee reported that the result of the mail vote taken from the members was in favor of May and December as the dates of the semi-annual meetings, which are to be held in future instead of quarterly meetings.

The Oshawa Ry. Co. was elected a member of the Association.

The proceedings before the committee of the Ontario Legislature, referred to in the Vice-President's opening remarks, were discussed at considerable length.

At the afternoon session E. A. Evans took the chair. J. C. Rothery promised to prepare a paper on the development of electric energy by water power and to have it in the Secretary's hands at an early date.

BEST SYSTEM OF COLLECTING FARES.

In the unavoidable absence of D. McDonald, M.I.E.E., Manager, Montreal St. Ry., the following paper, written by him, was read by P. Dubee, Secretary of the Company:—

The collection of fares is a very important and interesting subject, and too much cannot be said or written about it. If the same amount of deep thinking that is being given constantly to the less important technical questions that interest us all, should be devoted to the consideration of our modes of collecting, the results would, I am sure, prove marvellously profitable to most companies. After more than a half-century's experience in operating street cars, it must be admitted that our so-called systems of collecting are perhaps the most defective part of our organization. If the losses incurred yearly by the missing and purloining of fares could be computed with any degree of accuracy, the revelation would prove astounding to us all. This large and extensive "x" which managers agree to call 5, 10, or 15%, amounts in most cases to a larger sum than most street railways pay in dividends, and the comparison presents itself still more strikingly when we consider that this dead loss, or whatever part of it we can succeed in saving, is not only an increase of earnings but a clear net benefit. It is hardly necessary to go into the detailed enumeration of the different methods in which our "little grains of sand" are being gathered. These inherent defects are so patent and publicly known that any of our patrons, so disposed, can relate to us precise information about them, without, however being able to suggest any effective remedy for the evil. Therefore to save time I will limit myself to a short mention of the different systems that you all know so well, just to help us to face this difficult question in the proper manner.

1st. The register; on this continent the register seems to have proved the most acceptable to American companies who, however, are far from being satisfied with its elastic guarantee. It is too often beaten, and tampered with to enable us to recommend it as anything like an ideal system, and the missing of fares, especially in crowded cars, is not diminished by its operation, although it must be said that outside of rush hours its automatic figuring does assist the conductor to a certain extent to keep tab on new arrivals. Owing to the increase in the use of tickets in the U.S., the register is daily becoming less satisfactory on account of the difficulty of recording different priced fares. The register is, however, accepted and tolerated for want of a better method.

2nd. The portable fare box, carried by conductors is generally adopted on our side of the line, and the best argument in its favor is perhaps that the fare receipts by the use of this box are prevented to a great extent from straying into the pocket of a third party, and go direct from the patrons hand to the company's office, which is a considerable advantage. Another point in favor of the box is that the fare must be deposited in the box by the passenger, and if this is not done the patron is immediately made aware of the fact that the conductor has failed in his duty. As

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to the preventing of missing fares, it cannot be said that the box system is any more effective in this respect than the register

3rd. Receipt system; the European system for giving a receipt for every fare and having inspectors to control the issue of the receipt is another mode of collecting which has only met with partial success, for many reasons. The fact that the inspector can only check a small portion of the receipts issued renders it very undesirable, and the complete checking of all receipts, which would require a very large number of inspectors, would only lead to a greater difficulty, probably a mutual understanding between inspectors and conductors, which would prove equally disastrous. The re-issuing of receipts already used and the difficulty of preventing this abuse is another great defect in this system. The writer has had consideratble experience in the general working of the receipt system on a large number of European roads, and is of the opinion that this mode of collecting is fairly adaptable to long surburban or interurban runs, but in city service it is very much disliked by passengers who protest against being disturbed or annoyed on short trips to produce their receipts for inspection. Again the missing of fares is not safeguarded by the use of this system, and the failures to collect in rush traffic are just as numerous as with our American systems.

4th. The system of giving prizes to be drawn for by the holders of receipt coupons is claimed to be an improvement on the receipt system, but even if this lottery business could be legally practised in our country, it would only partially protect against the losses above mentioned.

These three or four different ways of collecting are the most in vogue universally, and we are forced to admit that they are one and all essentially deficient. Each and every one of them impose an impossible task on the conductor, who by these methods cannot be strictly held to the integral collection of all his fares. Twenty-five people enter a car and pay their fare, 25 more are taken on in the next few blocks, and after they have been well mingled and mixed up with those who have already paid, the poor conductor is expected to go and pick them out without missing any —a very difficult task which must perforce be only partly accomplished. The above fact have forced us to the conclusion that our modes of collecting up to recently are unbusiness like and impractical, and that to improve them we must furnish our conductors with some systematic means of following his collection of fares, and prevent that doubtful and groping sentiment that places him at the mercy of forgetful or ill-disposed passengers.

The only ideal system of collecting in vogue to-day is the positive system, as it is worked on subways and elevated railways where passengers have to pay before entering the car on which they desire to travel. We are all thoroughly convinced that the application of this system to our surface operation, if it were practicable, would be a source of great benefit, and we would immediately cease to tribulate on this subject. Unfortunately it is not possible to adopt this method integrally on surface cars, but we are pursuaded that the best means of improving our fare collection is to adopt the elevated system as much as possible.

With this idea in view, we are at present experimenting with a new make of car in Montreal, that permits of the application of a very positive mode of collecting, the nearest approach to the exemplary system above mentioned. These new cars, known as the "Pay as you enter cars" have been in operation for several months and are giving good results. Our comparative statements show that earnings on this style of car are much higher than on other cars where collecting is done in the old way. The new car has, in place of a 5 ft. platform one of 7 ft., and instead of an ordinary door placed in the centre of the rear end there are two doors, the brass railings leading up from the steps dividing the platform into two aisles. The door to the left is to be utilized entirely by persons entering the car, and the other solely by those desiring to leave. This is arranged and made arbitrary by the fact that while one of these doors opens inward only, the other opens only outward. When the pasenger steps on the platform, which is amply large for 30 adults, he is met by the conductor who request a fare before he enters; in other words, the platform is the pay office on the car. The passenger then passes on through the entrance door into the car, from which he may make his exit at any time, either by the front entrance or by the rear door designed for the purpose. The conductor, having no fares to collect from passengers in the car, can remain at his post on the platform, giving such attention as is necessary to the passengers getting on or off the car. The conductor is also provided with a receptacle into which the fare box fits, so that he may when necessary have both hands free, and at the same time not miss fares. As these cars are all provided with electric buttons as well as the usual signal cord, the passenger can easily and at all times make his desires known without having the conductor at his elbow. Another improvement in the new design is the exit from the front platform. This portion of the car being more spacious than usual, not only gives the motorman ample room, but divides him from the rear portion of his platform by a brass railing At the motorman's foot is a catch, which, when released by pressure, throws open the door automatically; thus making it unnecessary for the man in charge of the motors to even raise his hand or turn his head. In view of the fact that serious accidents on street cars happen at the back platform when the conductor is busy collecting fares inside the car, and unable to properly gauge stops and starts, the new design is considered most important. The saving of time is also a great advantage, as passengers begin to enter immediately the car stops, without having to wait for passengers getting off. The moment intending passengers are all safely landed on the platform the car is started, and in a few seconds after this, fares are all collected before reaching the next stop. A large number is painted on the front dash of car, so as to indicate to intending passengers, who can see it blocks away, that a new style of car is coming or "Get your fare ready, please," and it is pleasing to note how quickly they do prepare, and how quickly ten, fifteen or twenty passengers can be collected and served with transfers with this system.

We are of the opinion that to improve our mode of collecting fares and save our losses, a radical departure must be made from the old method, and we must by the adoption of a positive business-like system, such as prevails in all other lines of transportation and regular business, get the best cinch possible on our well-earned receipts, for even if we do say it ourselves, "we deliver the goods every time," and where can you get better value for your money?

In the discussion which followed the reading of the paper it was stated that during the first month one of the new cars described by Mr. McDonald was in operation, the receipts from it showed an increase of 15% over the old style of car.

The question box was then taken up. One member asked:—"Is it possible to do away with the use of salt on the rails in winter?" Two members had sent in answers in the negative, and the members present unanimously endorsed this.

"What is the best, most practicable and surest way of handling passengers so that a fare may be collected from every one of them?' This was answered by the Managing Director of the Montreal St. Ry.:—"Collect the fares as the passengers enter into the car from the platform." The General Manager of the Quebec Ry., Light and Power Co., answered:—"The method adopted by the Montreal St. Ry. is the best at present known."

A question as to the merits of a certain make of underfeed stoker elicited considerable discussion and divergence of opinion. All agreed that it diminished the smoke nuisance, but some questioned if a saving of fuel was effected.

The use of T rails was discussed, the concensus of opinion being that they are superior to the girder rail.

J. C. Rothery was elected a member of the executive committee, to succeed C. E. A. Carr.

It was decided to hold the next meeting at Quebec.

In the evening the members attending the meeting were entertained at dinner at the Imperial Hotel, Niagara Falls, N.Y., by the Niagara, St. Catharines and Toronto Ry., a special car to take them to Niagara Falls and back being provided by the company. Messrs. Seixas and Goldman did the honors for the company and proved excellent hosts.

On Dec. 15, the members went from St. Catharines in a special car on the N., St. C. and T. Ry. to Niagara Falls, Ont., where the morning was spent inspecting the various power plants in course of construction, under the guidance of J. C. Rothery. After luncheon the party crossed to the U.S. side, went over the Niagara Falls Power Co.'s plant, and thence by special car on the International Ry. to Buffalo.

Projects, Construction and Betterments.

Hamilton Radial Ry.—The Wentworth County Council has granted permission to operate cars on the Bartonville extension for nine months. The extension into Oakville, Ont., has been completed, and progress is being made with the grading to the eastern boundary of the town, to meet the Mimico division of the Toronto and York Radial Ry.

Kingston, Portsmouth and Cataraqui Ry.—The erection of the power plant by the newly organized company has been completed, and the cars have been operated by it for over a month.

Levis County Electric Ry.—The construction of a branch to connect the line with the summit of the elevator has been completed. Owing to some differences with the town council the company announced that it would discontinue running cars after Dec. 23. (July, pg. 315).

London Street Ry.—At a recent meeting of directors it was arranged to appropriate a considerable sum for improvements to the line, etc. Subsequently it was reported that the control of the company has been obtained by local interests, and that as soon as the reorganization has been completed, the line will be practically reconstructed. (Oct., pg. 487).

Niagara, St. Catharines and Toronto Ry.—The work on the extension of about a mile from Falls View, to the right-of-way of the Toronto and Niagara Power Co., near Montrose, Ont., has been practically completed. The company did the work itself. The company is also filling in the trestle work at several points between Merritton and St. Catharines. It proposes to ask for tenders for filling in the remaining trestle-work, and to commence the work in the spring. (Nov., pg. 531).

Ontario Electric Ry.—A. B. Turner, Secretary, has addressed a letter to the Toronto City Council, asking for permission to enter the city near Kingston road, and to run west on Queen st. to Leslie st., to Eastern ave., to Trinity st., to Front st., and to St. Law-

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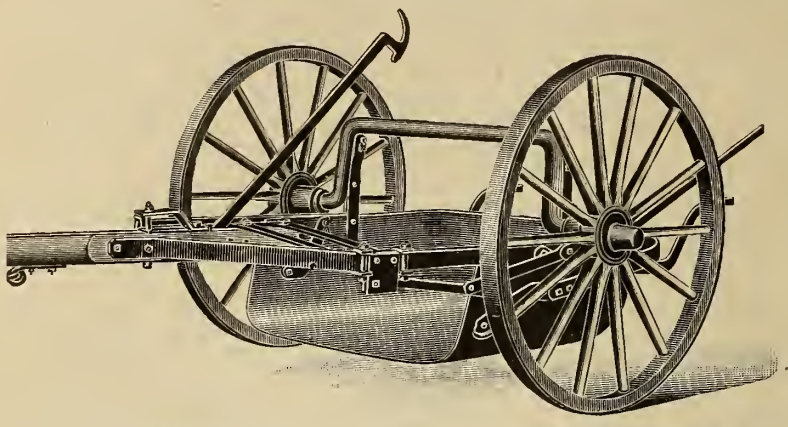

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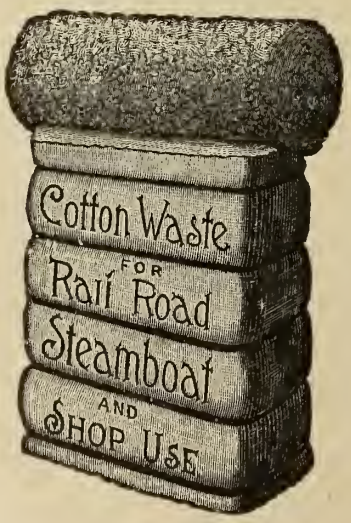

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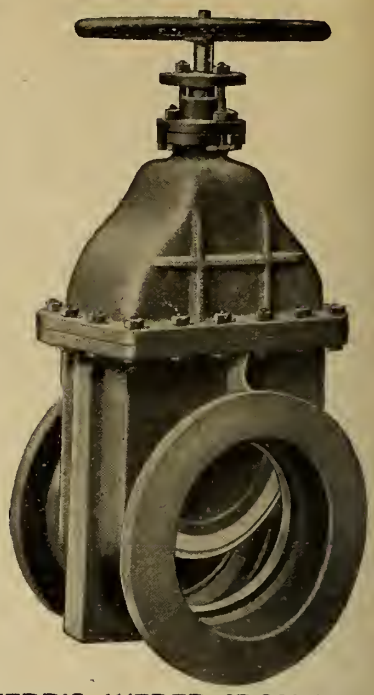

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rence market. The company would take a lease for 16 years, the balance of the term of franchise of the Toronto Ry., the city to have the option of taking the line over at that date, or on Sept. 1 of any year thereafter. The company offers to pay mileage and percentage on the same basis as the Toronto Ry. The matter is under discussion with representatives of the company.

Port Maitland to Beamsville, Ont.—Application will be made next session of the Ontario Legislature for an act incorporating a company to construct an electric railway from Port Maitland through the townships of Dunn, Moulton, Canboro, Wainfleet, Gainsborough and Clinton, and the town of Dunnville to Beamsville, Ont., with a branch line through the townships of Gainsborough, Clinton and Pelham to Fenwick, with incidental powers. J. C. Eccles, Dunnville, Ont., is solicitor for the promoters.

Quebec and Saguenay River Ry.—An engineering party headed by J. F. Guay recently started from Quebec to survey an inland line from Quebec to the Saguenay River. The original surveys were along the river front and around the face of Cap. Tourment, involving some very heavy rock cutting. The interior route, if adopted, would serve the villages more directly than a line along the shore, but it would involve some heavy gradients and necessitate the construction of branch lines to Bari St. Paul and Murray Bay. (Aug., pg. 371).

Rondeau, Ridgetown and Wallaeeburg Electric Ry.—Application will be made next session of the Ontario Legislature for an act incorporating a company with this title for the purpose of constructing an electric railway in the county of Kent. H. D. Smith, Chatham, is solicitor for the applicants.

St. John Ry., N.B.—The new 1,200 h.p. engine installed in the company's power house has been started. The engine was supplied by the Canadian General Electric Co. (Nov., pg. 543).

St. John, N.B.—W. Bruckhoff and A. H. Hannington, of St. John, N.B., are promoting an electric railway to run from Adelaide Avenue, which is midway between the foot of King St. and the foot of Main St., St. John, N.B., 3½ miles to Millidgeville, which is also within the city limits, and fronts on the Kennebecasis River. It is said that they will apply to the New Brunswick Legislature for a charter, and that they will ask for running rights over the St. John Ry. tracks to the foot of King St., in the centre of the city.

Southwestern Traetion Co.—The abutments and piers for the bridge over the Thames at London have been completed, and it was expected to have the superstructure in place during Dec. It will be a single span 178 feet in length, and will provide for a footpath alongside the tracks. Work is being pushed on the extension to Port Stanley, Ont. A. E. Welsh, manager, states that the line between London and St. Thomas will be completed by Jan. 1, and to Port Stanley during the summer. The directors in London, Eng., have authorized the making of surveys for a line from London to Hamilton, and F. G. Rumbald, President, states that the service will be taken in hand at once. (Oct., pg. 487).

Summerside, P.E.I.—Local press reports state that surveys have been made for an electric railway to serve St. Elenors, Traveller's Rest, New Annan, Kensington and other points, from Summerside, as a centre.

Sydney and Glace Bay Ry.—It has been decided to move the car barns, plant, and operating headquarters to Glace Bay, from Sydney, N.S.

Toronto.—The City Engineer has recommended the Council to construct a swing bridge across the Western gap, for the purpose of giving a street car connection with the Island. In the event of the Dominion Government vetoing a swing bridge, he recommends a double aerial bridge, similar to that at Duluth, Minn. The cost would be from $200,000 to $225,000.

Toronto Suburban Ry.—It is reported that surveys will be made from the present terminus at Lambton, along Dundas St., to Brampton, Ont. Local reports, however, state that a survey will be made for a line to run north of Dundas St. to Brampton, about midway between the C.P.R. and the G.T.R. lines, and starting either from near the present terminus at Lambton, or the more northerly terminal at Weston. This suggested line would serve directly a number of points which are now at some considerable distance from the railways.

Toronto Ry.—The City Council and the company are not agreed as to the lines to be extended in the city, the main point of dispute being as to the area within which the City Engineer may order the construction of additional lines. The company contends that the agreement only covers the area contained within the city limits at the time it was entered into, but the city contends that the agreement is so worded that it includes areas added subsequently. The case will go through to the Privy Council in London, Eng., before it is finished. The extension of the Avenue Road line northerly to the Upper Canada College is one for which the city is pressing, and a suggestion has been made that the parties agree to the construction without prejudice, so that the line may be completed during the year.

Toronto Radial Ry. Proposals.—The Mayor of Toronto has submitted another plan to the Board of Control to provide an entrance for the radial railways. He proposes that the Metropolitan Ry. tracks be removed from Yonge St. at Mount Pleasant Cemetery and diverted west by St. Clair Ave., to the city limits, and that the present city line extended up Yonge St. to the cemetery, the St. Lawrence Market to be the terminal of two lines. The northwest route to start at the head of Christie St., and reach the market as follows:—Christie St. to Bloor St., a short turn to Clinton St., to Mansfield Ave., to Claremont St., to Queen, to Niagara, to Bathurst, to Front, to the market. The eastern route to start at the Kingston Road on Queen St., to Eastern Ave., to Trinity St., to Front St., to the market. The tracks of the new lines to be standard gauge, 4 ft. 8½ in., the same as the tracks of the present radial lines, and where the route of the city line is encountered a third rail is to be laid, as its gauge is 4 ft. 10½ in. wide. The draft agreement provides that the lines shall come into the city's possession at the expiration of the franchise of the Toronto Ry. Co., in 1921, terms of the present agreement to govern the construction of the new lines and the same amount of mileage, $800 for single and $1,600 for double track, to be paid annually, in addition to the percentage on traffic, excepting on freight, which is not to be taxed for the city's benefit for a term of years. The proposals are under discussion. See Ontario Electric Ry.

Toronto and York Radial Ry.—The company has completed an arrangement for the collection and delivery of parcel freight from and to its various lines.

Work on the extension of the Metropolitan Division from Newmarket to Jackson's Point on Lake Simcoe is being proceeded with, and it is expected that it will be opened for traffic early in the summer. The power plant is to be increased from 1,500 to 3,000 h.p., in preparation for the opening of the extension. Arrangements are being made for a survey to be carried on during the winter for an extension from Jackson's Point to Beaverton.

The extension of the Mimico Division from Long Branch has been completed to Port Credit, Ont., and a car service has been placed in operation.

Windsor, Essex and Lake Shore Rapid Ry.—Dr. Jas. Brien, ex-M.P. for Essex, is quoted as saying:—"The grading of the roadbed will be finished between Kingsville and Windsor, Ont., next week, and this will be followed by the laying of tracks at once. The water-power of Niagara Falls will be used when Detroit and Buffalo are connected. The distance is 229 miles. The route will be from Windsor to Essex, Kingsville, Leamington, Wheatley, Tilbury, Chatham, London, and thence to Buffalo. Detroit capital is largely interested in the company." A mortgage to the National Trust Co. of the property and franchises of the company, to secure an issue of bonds for a sum not exceeding $20,000 a mile of the company's projected line, has been filed with the Provincial Secretary, Toronto. (Nov., pg. 543.)

Electric Ry. Finance, Meetings, Etc.

Brantford St. Ry.—A change has taken place in the ownership of this line and also of the Grand Valley Ry., an electric line running from Brantford to Paris and Galt, and the Woodstock, Thames Valley and Ingersoll Ry., another electric line running between Woodstock and Ingersoll. The two last mentioned lines were built under the management of Dr. S. Ritter Ickes, and the Brantford line was acquired by the same interests. The control of the three lines has now been secured by A J. Pattison, of Toronto, who has been interested with him for some time. Associated with him are Jno. Firstbrook and W. S. Dinnick, of Toronto. Mr. Pattison has been elected President of the Brantford St. Ry., and the Grand Valley Ry., and a new president will be elected for the Woodstock, Thames Valley and Ingersoll Ry. Pending the appointment of a manager, Mr. Pattison is in direct charge of the three lines, Dr. Ickes having retired with the intention, it is said, of going to California.

The Brantford St. Ry. Co. was incorporated in 1879, but little was done until 1887, when the company was reorganized and the line built and equipped. Subsequently it passed into the possession of the Canadian General Electric Co., and in July, 1902, was sold to the Von Echa Co., of Woodstock, Ont., who obtained a franchise from the city for 50 years. It has since been operated in connection with the Grand Valley Ry.

British Columbia Eleetrie Ry.—Gross earnings for Oct., $106,705 against $80,842 for Oct., 1904. Working expenses, $56 215; renewal funds, $8,500; approximate income from investments, $10,467; net income $52,-457, against $45,353 working expenses; $6.695 renewal funds; $2,750 approximate income from investments and $28,794 net income for Oct., 1904. Aggregate gross earnings for four months ended Oct. 31, $393,936; net income $184,298 against $292,449 gross and $111,022 net for same period, 1904.

An issue of £185,000 of 5% cumulative perpetual preference shares of £1 each at a premium of £1 10s., has been made in London, Eng.

Grand Valley Ry.—Following are the officers and directors for the current year:—President, J. G. Wallace, Woodstock, Ont.; Vice-President, A. J. Pattison, Toronto; Treasurer, S. R. Ickes, Brantford, Ont.; other directors: H. H. Powell, J. R. Stratton, J. Firstbrook, Toronto. Secretary, W. J. Ickes, Brantford.

Halifax Electric Tramway.—Railway earnings for Nov., $11,414.38 against $11,085.40 for Nov., 1904.

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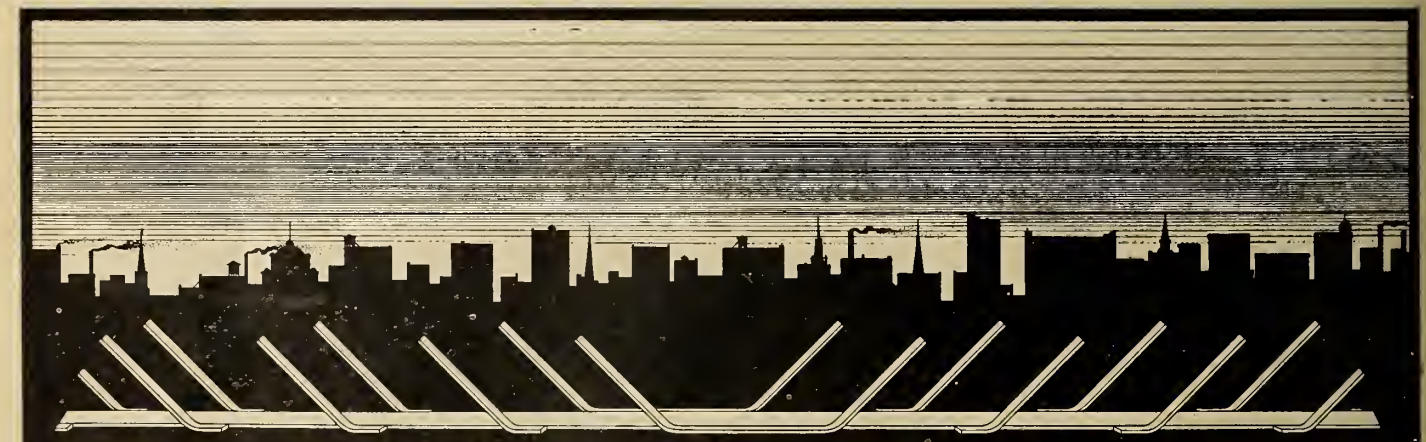

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London Street Ry.—Reports have been current in London, Ont., that the street railway system has been acquired by local financial interests, from the Everett-Moore interests of Cleveland, Ohio. P. W. D. Broderick and W. M. Spencer, two of the London directors, state that they do not know anything about the matter, except that the Everett Moore interests were ready to sell at any time. T. H. Smallman, Vice-President, has been out of the city a good deal of late, and it is said that it has been in connection with a proposed transfer of the control.

Montreal Street Ry.—Passenger earnings for Nov., $228,601.06; total earnings, $232,635.23 against total earnings of $204,554.76 for Oct., 1904. Operating expenses, $153,627.63; fixed charges, $22,074.15; surplus, $56,933.45 against $133,848.97 operating expenses; $18,870.58 fixed charges and $51,835.21 surplus for Nov., 1904. Net earnings for two months ended Nov. 30, $187,115.05; surplus, $143,978.26 against $171,345.14 net earnings and $133,527.24 surplus for same period, 1904.

The privy Council in London, Eng., has decided that the city is not entitled to a percentage of the company's earnings on the lines outside the city limits, but only to a percentage on the receipts taken within the limits of the city proper.

Recent reports in Montreal financial circles stated that an arrangement had been made by which the company was to be re-organized with a capital of $12,000,000. The present capital is $7,000,000, and the company controls the Montreal Park and Island Ry. The additional capital would provide for the complete absorption of the M. P. and I. Ry., discharge the company's indebtedness to the bank, and provide for the $1,000,000 which the directors decided to set aside for the provision of additional rolling stock and extensions. We have been advised that nothing will be done, and that no definite plans can be made until the Quebec Legislature has passed upon the legislation to be asked for next session. This is for an act authorizing the company to increase its capital stock, and to issue stock in payment or part payment of other companies; to authorize the borrowing of money; to increase the denomination of its shares from $50 to $100; to authorize it to dispose of stocks and bonds held by it and to divide the proceeds among its shareholders; to authorize it to guarantee the capital and interest or dividends of other companies; increase its powers in various respects, and to repeal and amend the acts relating to the company as may be necessary to give effect to the powers asked for.

Niagara, St. Catharines and Toronto Ry.—Gross earnings 11 months ended Nov. 30, $229,971.84 against $209,705.55 for same period, 1904. Net surplus over and above all operating expenses and interest for 11 months ended Nov. 30, $41,367.54 against $32,917.07 for same period, 1904.

The St. John, N.B., Ry. Co. has bought the plant and franchises of the Carleton Electric Light and Power Co., which supplied light and power for St. John West, N.B. It was recently stated that application would be made to the New Brunswick Legislature for power to construct an electric railway in the district. The company's plant was, however, acquired by a local syndicate and has since been absorbed by the St. John Ry.

St. Thomas Street Ry.—A report as to the earnings of the street railway for 10 months ended Oct. 30, presented to the St. Thomas Ont., City Council, showed the ticket sales and cash fares were $14,949.12 against $12,478.70 for same period of 1904. The number of passengers carried in the same period was 431,549 against 336,724.

Toronto Ry.—Car earnings for Nov., $220,803.78 against $198,150.35 for Nov., 1904.

Electric Railway Notes.

The Toronto Ry. has placed an order for 2,000 tons of 96 lb. steel girder rails with a U.S. firm.

The Guelph Radial Ry. Co. carried 525,592 passengers in the year ended Sept. 30, 1905, an increase of 119,943 over the previous year.

The International Ry. of Buffalo, N.Y., has placed an order for 100 cars for use on its several lines in Canada and the U.S.

The Montreal Street Ry. Co. has made arrangements by which the public can purchase tickets at a number of stores on St. Catherine St.

F. W. Glover, local manager of the B.C. Electric Ry., returned to New Westminster, B.C., at the beginning of Dec. from a six weeks' trip to eastern points.

Jas. Milne, of Toronto, has been appointed General Superintendent British Columbia Electric Ry., with headquarters at Vancouver, B.C., and will enter on his duties early in Feb.

P. Simard, the employe of the Montreal Street Ry., whose duty it was to throw the bags containing used tickets into the furnace at the power house daily, has been arrested for stealing some of the tickets. O. Ferron, a grocer, has also been arrested on a charge of receiving the stolen tickets and disposing of the same to the public. Both pleaded not guilty and are under remand.

M. P. Baker, heretofore Superintendent Calais Street Ry., Calais, Me., has been appointed Divisional Superintendent International Ry. Co., at Niagara Falls, N.Y., succeeding J. C. Rothery, resigned. He will have charge of the operation of the company's lines in Niagara Falls, N.Y., and Niagara Falls, Ont. The Calais St. Ry. owns and operates the electric railways in Calais, Me., and St. Stephen's, N.B.

J. C. Rothery, heretofore Superintendent International Ry. at Niagara Falls, N.Y., has been appointed General Manager East Liverpool Traction and Light Co., East Liverpool, Ohio. This company is a combination of the East Liverpool Ry. Co., the Ceramic City Light Co., Wellsville Electric Light Co., Eastern Ohio Ry. Co., Glasgow Ry. Co., and the Island Run Coal Co., recently controlled by the United Power Co., the East Liverpool and Rock Springs Ry. Co., and a suspension bridge over the Ohio River, connecting East Liverpool, Ohio, and Chester, West Va.

The question of what is the best pattern of fender for use on electric railway cars has been under discussion in Canada for some time, but opinions are still divided as to which is best. The Ontario Government has adopted four styles, any one of which may be adopted. The Toronto Ry. has been experimenting with a number of fenders, but has not yet adopted a standard, although it was recently reported to the Board of Control that a specific pattern had been adopted. A petition has been signed in Vancouver asking the B.C. Electric Ry. to adopt a different pattern of fender to that now in use. W. G. Ross, Managing Director Montreal Street Ry., recently said in an interview on the question, "The opinion of the company with regard to fenders is that there would be fewer accidents if there were no fenders projecting from the front of the cars."

The effect of a recent decision by Judge Anglin in regard to the Toronto Ry. Co., is that the city authorities have the right to determine what new lines shall be established, whether on streets within the city at the time of the street railway agreement, or on streets within territory since added to the area of the city; that the City Engineer has authority to fix time tables and routes; that, if the Engineer so determines, the company must require cars starting before midnight to finish their respective routes, even though this may cause them to run after midnight; that the Engineer has authority, subject to the approval of the city council, to determine at what time the use of open cars shall be discontinued in fall and resumed in spring, and when cars shall be heated; and that the city has other remedies than the enfranchisement of another company when the company fails to establish new lines and operate them. The decision is being appealed from by the company.

Grain Elevator Notes.

The Intercolonial Ry. elevator at Halifax, N.S., has been put in order, and began receiving wheat for export early in Dec.

The Department of Railways and Canals will shortly call for tenders for the superstructure of the proposed 2,000,000 bush. elevator at Port Colborne, Ont.

The Empire Elevator Co. proposes to build an elevator, larger than the one it recently completed at Fort William, Ont., at some point between there and Winnipeg.

The Alberta Pacific Elevator Co. has erected 15 elevators of 30,000 bush. each, in different parts of Alberta, since July last, and is arranging to open up a trade with the Orient, through Vancouver.

The elevator at Vancouver for the Hall Elevator Co., Winnipeg, Man., and Lumsden, Alta., is expected to be completed early this month. The elevator will handle the surplus wheat crop of Alberta, which is estimated at 1,000,000 bush.

Work is reported to be progressing satisfactorily on the new 1,000,000 bush. elevator on the G.T.R. at Tiffin, near Midland, Ont. The elevator is of steel and the equipment will include complete outfit of power transmission machinery, marine leg, boat scrapers, [illegible] weyers and trippers, car couplers, etc.

The Calgary Milling Co., Calgary, Alta., has taken out a permit for the erection of a grain storage warehouse at Vancouver, B.C. It is stated that this is preparatory to the construction of an elevator for export trade. J. K. Ker, an officer of the company, is on a trip to Japan with a view of opening up the trade.

The C.P.R. has issued a statement showing that between Sept. 1 and Dec. 12, 1905, it carried 14,342,028 bush. of wheat into Fort William, Ont., and there were shipped from the elevators there between same dates 14,609,990 bush. On Dec. 12 there were about 400,000 bush. of wheat in the C.P.R. elevators at Fort William.

The Department of Trade and Commerce reported that to Nov. 25, the Canadian Northern Ry. had passed through its elevator at Port Arthur, 6,070,002 bush. of grain; the C.P.R., to Nov. 27, had handled at its Fort William elevators, 17,511,041 bush.; and the Empire Elevator Co. had handled 6,000,000 bush. at its Fort William elevator up to Nov. 30.

The Goderich, Ont., town council has submitted a by-law to the taxpayers, guaranteeing the bonds for building a second elevator to the extent of $25,000, taking a first mortgage with insurance protection. It is proposed to build the second elevator alongside the present one. The new elevator will be of similar size to the present one, viz.: 500,000 bush. capacity, and will be owned and operated by the Goderich Elevator and Transit Co.

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MARINE DEPARTMENT.

The C.P.R. Atlantic Steamers.

The Empress of Ireland, the second of the two new trans-Atlantic steamers being constructed for the C.P.R. Atlantic lines, was expected to be launched from the yards of the Fairfield Shipbuilding Co., Glasgow, Scotland, by the end of 1905. She is in every respect a duplicate of the Empress of Britain, launched from the same yards Nov. 11. Their general dimensions are: length, 569 ft.; breadth, 65.2 ft.; depth to upper deck, 40 ft.; their register tonnage is 14,500 tons. They are built to Lloyd's three deck and shelter deck 100 A1 class, with forecastle and long bridge. A cellular double bottom is fitted the full length of the ship, and the hulls are divided into separate compartments by nine watertight bulkheads, so as to obtain every security. These bulkheads extend to the level of the upper deck, and are built in accordance with the recommendations of the Bulkhead Committee, so that with any two compartments filled with water the ship would still remain afloat. The hulls are of steel with bottom and top sides hydraulic riveted, and are provided with bilge keels to reduce rolling to a minimum. On the boat deck at the fore end there is a spacious deckhouse for the captain and officers, with chart and wheelhouse. In front of the wheelhouse, for the full width, is a space reserved for the navigation of the ship, and aft of the wheelhouse is a firemen's promenade, with a shelter, communicating directly with the boiler room. Accommodation has been provided for 310 first, 470 second, and 500 third-class passengers, on and above the main deck, and for 270 third class on the lower deck forward. The remainder of the lower deck, with the whole of the orloop deck and hold is for cargo, and two of the lower deck holds will be insulated for carrying frozen meat. The accommodation for the first-class passengers is provided on the lower and upper promenade and the shelter decks, and includes dining saloon to accommodate 250 persons, children's dining room, smoking room with verandahs, music room, together with staterooms, of which some are en suite with private bathrooms. The second-class accommodation is on the shelter deck abaft the first class, and comprises dining saloon the full width of the ship, social hall, and smoking room all adjoining, children's nursery on the deck below, and staterooms. The third-class passengers are placed on the upper and main decks, and are provided with a dining room the full width of the ship, ladies' room and smoking room, with ample promenade and berthing accommodation. The decorations all through are of the highest class. In the first class fine cabinet woods, silks and tapestries are used; in the second class mahogany, and in the third class Canadian maple. The sanitary and ventilating appliances are of the most modern type. For handling the cargo there are 12 winches, and two additional winches are provided for the boats. A complete refrigerating and icemaking plant has been installed, as well as an electric lighting and other plant. The propelling machinery consists of two sets of quadruple expansion balanced engines, and the propellers are four-bladed. Steam will be supplied from nine boilers placed in two watertight compartments, with a large coal bunker between. There are six double ended and three single ended boilers, heated by 60 furnaces; forced draught, and a pressure of 220 lbs. to the square inch are provided for. The engines are calculated to aggregate 18,000 h.p. The steamers are also fitted with the receiving system for the submarine bell signalling system, the Dominion Government having installed several stations at dangerous points in the Gulf of St. Lawrence and the Maritime Provinces. An illustration of the Empress of Britain was given in our Dec. issue.

The Tidal and Current Survey branch of the Department of Marine has issued tide tables for Quebec, Father Point, Halifax and St. John, N.B., for 1906, with tidal differences for the Gulf and River St. Lawrence, Nova Scotia and the Bay of Fundy, and information on currents.

Atlantic and Pacific Ocean Marine.

The Allan Line is having plans prepared for two turbine steamers somewhat larger than the two it now has.

The training cruise of the Dominion Government cruiser Canada for 1905 cost between $25,000 and $30,000.

Capt. Pitts, of the Allan Line str. Laurentian, Lieut. R.N.R., has been promoted to the rank of Commander R.N.R.

The Carmania, the first of the Cunard Lines' turbine steamships, reached New York on her first trip, Dec. 11. She made 19½ knots an hour on the builder's trial trip.

The stranded Allan liner Bavarian will be allowed to remain on the Wye rocks below Quebec during the winter in charge of a crew of four men. The salvage operations will be renewed in the spring.

The Australian House of Representatives has extended the mail contract to the Canadian-Australian Line until July 1 next. The subsidy is at the rate of £66,000 a year, of which Canada contributes £37,091; Australia, £26,563, and Fiji, £2,346.

The owners of the Nova Scotia sealing schooner, which was seized and the crew imprisoned at Montevideo, on a charge of fishing within the three mile limit, propose to bring an action for damages against the Government of that South American republic.

A press report states that the C.P.R. has had plans prepared, and that an order will shortly be placed with a Clyde shipbuilding yard, for the construction of a new steamer for its Pacific Ocean trade. The plans, it is stated, are for a steamer of practically similar size, speed and equipment to those on the Atlantic Ocean.

The icebreaking str. Montcalm returned to Quebec Dec. 7, after having piloted the C.P.R. trans-Atlantic liner into the Gulf of St. Lawrence. It is claimed that the result of the trip shows that navigation from Que-

(*Continued on page 43.*)

LIST OF STEAMSHIPS REGISTERED IN CANADA FROM NOV. 15 TO DEC. 15.

Name.	No.	Where and When Built.	Engines, etc.	Length	B'dth.	Depth.	Gross tons.	Reg. tons.	Home Port.	Owners.
				ft.	ft.	ft.				
Edna K.....	116,873	Youngstown, N.Y., 1903...	Screw 2 N.H.P.....	48.0	12.3	4.5	22	15	St. Catharines, Ont...	Roy Grabell, Port Colborne, Ont.
Electra.....	121,712	Vancouver, B.C., 1905.....	" 8 "	36.6	7.4	3.5	12	8	Vancouver, B.C.....	W. H. Wood, et al., Vancouver, B.C.
Minnitakie....	117,199	Dinorwic, Ont., 1905.....	" 6 "	45.0	9.5	4.2	18	12	Kenora, Ont.....	L. Johnstone, Wabigoon, Ont.
Muriel.....	117,200	Dinorwic, Ont., 1905.....	" 1 "	35.0	9.5	4.5	16	11	Kenora, Ont.....	L. Johnstone, Wabigoon, Ont.
Oyama.....	117,047	Port Clyde, N.S., 1905.....	" 8 "	53.2	17.2	5.5	44	28	Barrington, N.S.....	Barrington and Cape Island Steam Ferry Co., Barrington, N.S.
Pete Gorman.	100,309	Saginaw, Mich., 1892.....	"	76.0	19.8	10.0	65	37	Windsor, Ont.....	Jas. Whalen, et al., Port Arthur, Ont.
Prospector....	121,713	Vancouver, B.C., 1905.....	" ½ "	27.0	7.7	2.3	8	5	Vancouver, B.C.....	J. D. G. & A. E. Alexander, Vancouver.
Rat Portage..	117,198	Kenora, Ont., 1905.....	" 1 "	38.5	8.0	3.5	15	10	Kenora, Ont.....	Rat Portage Lumber Co., Kenora, Ont.
Wil. L. Snow.	121,812	Shelburne, N.S., 1905.....	"	63.5	16.7	7.2	36	36	Digby, N.S.....	E. Kearns, et al., Granville, N.S.

LIST OF SAILING VESSELS AND BARGES REGISTERED IN CANADA FROM NOV. 15 TO DEC. 15.

Name.	No	Where and When Built.	Rig.	Length	B'dth.	Depth.	Gross tons.	Reg. tons.	Home Port.	Owners.
Abbie.....	121,808	Clyde, N.S., 1904.....	Sloop	31.0	11.4	6.0	10	10	Yarmouth, N.S....	C. D. Atkerson, Cape Island, N.S.
Chiblow.....	121,842	Blind River, Ont., 1905....	Scow	83.0	23.5	2.7	79	79	Toronto, Ont.....	Blind River Transportation Co., Blind River
Dove.....	117,115	Petpiswick, N.S., 1905.....	Schr.	35.0	11.5	4.8	10	10	Halifax, N.S.....	Geo. Myrer, Petpiswick, N.S.
Dredge No. 15..	100,310	Saginaw, Mich., 1891.....	Scow	100.0	34.4	9.5	327	174	Windsor, Ont.....	Jas. Whalen, et al., Port Arthur, Ont.
Edna V.Picke'	117,[illegible]	Salmon River, N.S., 1905..	Schr.	154.5	35.0	12.0	442	389	An'apolisRoyal,N.S	F. W. Pickles, Annapolis Royal, N.S.
Estrella.....	121,809	Tusket Wedge, N.S., 1905..	Sloop	35.0	11.2	6.0	11	11	Yarmouth, N.S....	N. Porthier, Tusket Wedge, N.S.
Evangeline.....	117,048	Clark's Harbor, N.S., 1905.	Sloop	36.0	11.8	6.7	11	11	Barrington, N.S...	F. Crowell, Clark's Harbor, N.S.
Fleur de Lys....	116,967	Gloucester, Mass., 1879....	Schr.	36.2	13.2	5.6	16	16	St. Andrews, N.B..	H. H. B. Kelley, Campobello, N.B.
Florence.....	116,968	Bristol, Me., 1904.....	Sloop	36.2	14.2	7.2	18	18	St. Andrews, N.B..	J. F. Eldridge, Beaver Harbor, N.B.
F. no. 1.....	121,714	Nanaimo, B.C., 1904.....	Scow	75.0	27.0	7.0	86	86	Vancouver, B.C....	J. D. Foreman, Vancouver, B.C.
Helena.....	116,874	Merritton, Ont., 1905.....	Barge	135.3	26.2	8.0	244	218	St. Catharines, Ont	Joseph Battle, Thorold, Ont.
Ida Bentley.....	116,903	Port Greville, N.S., 1905...	Schr.	154.2	34.2	12.8	472	430	Parrsboro, N.S....	G. E. Bentley, Port Greville, N.S.
Luella.....	117,186	Stonehaven, N.B., 1905....	Schr.	88.3	24.0	8.6	99	99	Chatham, N.B.....	F. J. Comeau, Granville, N.S.
No. 41.....	117,171	Saginaw, Mich., 1891.....	Scow	112.5	25.5	8.6	247	247	Windsor, Ont.....	Jas. Whalen, et al., Port Arthur, Ont.
No. 42.....	117,172	Saginaw, Mich., 1891.....	Scow	112.5	25.3	8.6	245	245	Windsor, Ont.....	Jas. Whalen, et al., Port Arthur, Ont.
H. C. Phillips...	117,049	Clark's Harbor, N.S., 1905.	Sloop	32.0	11.0	6.7	11	11	Barrington, N.S...	O. Phillips, Clark's Harbor, N.S.
Stanley Joseph..	116,859	Shelburne, N.S., 1905.....	Schr.	71.0	21.4	8.1	62	62	Shelburne, N.S....	J. A. McGowan, Shelburne, N.S.

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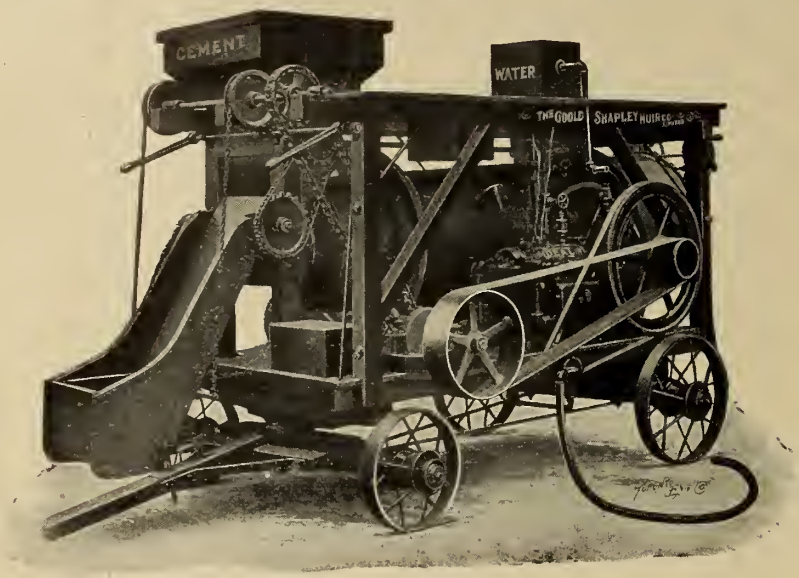

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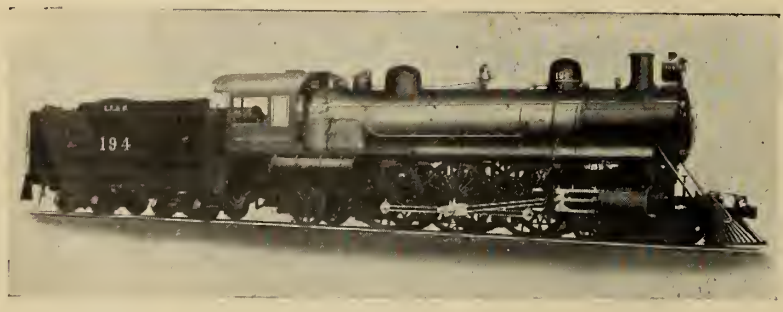

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Lv.	Montreal	*9.00 a.m.,	*7.45	p.m.
Arr.	Lowell	*7.29 p.m.,	*6.37	a.m.
"	Worcester	†9.04 "	*9.19	"
"	Boston	*8.15 "	*7.30	"

VIA G.T.RY., AND WHITE RIVER JCT.

Lv.	Montreal	*9.01 a.m.,	*8.40	p.m.
Arr.	Lowell	*6.11 p.m.,	*7.17	a.m.
"	Worcester	†9.04 "	*9.19	"
"	Boston	*6.55 "	*8.05	"

VIA G.T.RY., WEST SHORE & ROTTERDAM

Lv.	Toronto		*4.10	p.m.
"	Niagara Falls		*6.30	"
"	Buffalo	*4.30 a.m.,	*7.20	"
Arr.	North Adams	*1.08 p.m.,	*5.11	a.m.
"	Worcester	*4.55 "	*9.59	"
"	Boston	*5.20 "	*9.50	"

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Atlantic and Pacific Ocean Marine.

(Continued from page 41.)

bec to the ocean can be carried on for six weeks later in the season than heretofore with ordinary built steamers.

The Dominion Government has passed an Order-in-Council granting a contract to the Bucknall Steamship Line of London, Eng., for a service between Vancouver, B.C., and New Zealand. The contract calls for 12 sailings in the year each way, the vessels to have a speed of 10 knots an hour. The Canadian and the New Zealand Governments each provide a subsidy of $50,000 a year.

A press despatch from Glasgow, Scotland, states that negotiations are in progress, if they have not already been concluded, for the purchase by the C.P.R. of the Donaldson line of steamers, trading between Canada and Glasgow. The steamers are principally freighters, with a limited passenger accommodation. A new freight and passenger steamer for the line is under construction on the Clyde.

Following are the officers and directors of the Quebec Transport Co. for the current year: President, W. Power, M.P.; Vice-President, J. G. Scott; Managing Director, T. Harling; other directors: J. G. Ross, A. E. Doucet. At a meeting of shareholders held Dec. 1, the Managing Director was authorized to make the necessary arrangements for a regular service between Quebec and European ports for the season of 1906.

The Donaldson Line has placed an order on the Clyde for the construction of a 10,000 ton freight and passenger steamer for its service between Canada and Glasgow, Scotland. The new steamer will be propelled by twin screws, driven by quadruple expansion engines, and will be fitted with cold storage. She will be named the Cassandra, and is expected to be placed on the Montreal-Glasgow run early in the season of 1906.

The C.P.R. S.S. Monteagle is to be transferred from the company's Atlantic service to the Pacific coast, and will from May 2 run between Vancouver, B.C., and Hong Kong. The Monteagle is a twin screw steel steamer built in 1899, of 5,499 tons gross, and 3,492 tons register. Her dimensions are: length, 445 ft.; breadth, 52.2 ft.; depth of hold 20.7 ft. She has a speed of 13 knots an hour, and accommodation for a limited number of passengers.

A monument erected by the White Star Steamship Co., in memory of the loss of the str. Atlantic, April 1, 1873, was unveiled in the churchyard at Torrance, N.S., Dec. 8. There were over 900 persons on board the steamer when she struck on Prospect rocks, and of these 562 were drowned. Of the bodies recovered 277 were buried in Torrance churchyard. Capt. Brown, of the Allan Steamship Co.'s str. Bavarian, was a junior officer on the Atlantic at the time she struck, and swam ashore with a line, thereby enabling communication to be established with the shore.

The Minister of Marine, while in England recently, was asked by the shipping interests there to take steps to improve the pilot service on the St. Lawrence. An Ottawa despatch states that it was only by an act passed last session of Parliament that the Government obtained control of the pilotage, and it is claimed that no time is being lost in carrying out the policy of improvement. The department, it is stated, contemplates reducing the number of pilots, and requiring that before any new pilots are licensed, they shall have served an apprenticeship of seven years, and to have made 10 ocean voyages. It is also proposed that the pilots will be required to pass an examination as to physical fitness every year, and that they will be compulsorily retired at 65 years of age.

The season of navigation at Montreal opened May 2 and closed Nov. 30. Between those dates 833 ocean-going vessels, with a tonnage of 1,940,056 tons, entered and cleared. This was an increase of 37 in the number of vessels and of 83,359 in the tonnage over the season of 1904. Of the vessels, 786 were steamers, four barques and 43 schooners. Following are some statistics relating to the trans-Atlantic steamers for 1905:—

ALLAN LINE.—A weekly service between Montreal and Liverpool; and services to Glasgow, Scotland and Havre, France. There were carried 11,709 passengers eastward, and 42,253 westward, on the Montreal-Liverpool line; and about 10,000 passengers westward on the Montreal-Glasgow steamers.

C.P.R. ATLANTIC STEAMERS.—During the season three steamers were engaged in the Montreal-Liverpool service, making 18 round trips; five steamers on the Montreal-London and Antwerp service making 23 round trips; a service was also maintained between Montreal and Bristol.

DOMINION LINE.—Weekly service between Montreal and Liverpool. There were carried 4,753 passengers eastbound, and 20,064 westbound.

FURNESS, WITHY & CO.—This company manages the Manchester Liners, which made 21 voyages, the steamers employed having a net register tonnage of 56,141, between Montreal and Manchester, calling at Quebec, and as occasion required at Charlottetown and other ports. It also managed steamers of 10,918 net register tons, making four voyages to South Africa, and chartered steamers of 3,724 tons for two outside voyages.

MCLEAN, KENNEDY & CO.—The Head Line steamers, of which this firm is the manager in Montreal, made 22 trips between Montreal and Dublin and Belfast during the season, the steamers engaged having a net register tonnage of 45,766 tons. The firm also had the agency for tramp steamers of 23,621 net register tons, making 15 trips.

THE LEYLAND LINE maintained a service between Montreal and Antwerp.

THE ROBERT REFORD CO.—This company had the agency for three regular lines of freight steamers, and also represented steamers of 13,748 net register tons, making nine voyages. Of the four lines, the Donaldson steamers of 105,442 tons, made 34 voyages between Montreal and Glasgow; the Thompson steamers of 85,092 net register tons, made 42 voyages to London, Newcastle-on-Tyne, Leith and Dundee; the Lord Line, one steamer of 5,037 tons, made three voyages to Cardiff. The Lord Line, owing to the unprofitable state of the freight market, had to reduce the number of its sailings.

Maritime Provinces and Newfoundland.

Powell and Surin, of Clark's Harbor, N.S., have had built at Shelburne, a 43 ft. gasoline boat for their coasting trade.

The British Admiralty offered for sale by tender the mooring lighter, 250 tons capacity, formerly in use at the Halifax dockyard.

The Moncton, N.B., City Council has voted a subsidy of $500 to the Shepody Navigation Co., which operates the str. Wilfrid C. on the river.

The Dominion Atlantic Ry. has under consideration a proposal to construct a turbine steamer for its steamship routes on the Bay of Fundy.

R. V. Longworth has been appointed by the Department of Marine to look after the freight of the winter steamship service at Charlottetown P.E.I.

The schooner Lady of Avon Co. has been organized at St. John, N.B., with M. Elkins as ship's husband. Mr. Elkins is also manager of the Lord of Avon Co.

A proclamation has been issued declaring the port of Walton, N.S., to be one to which the act relating to harbor masters shall apply, and defining the limits of the port.

The Dominion Iron and Steel Co. has chartered the Swedish str. Drottning Sophia to carry iron ore from Wabana, Nfld., to Sydney, N.S., for the season of 1906.

The St. John River steamer Clifton was burned at her moorings, Reed's Point, recently, and totally destroyed. The owners are looking for another steamer to place on the route at the opening of navigation.

The Dominion Government has appointed the following wharfingers at Government wharves:—N. P. McLean, Washabuck Center, N.S.; M. Faulkner, Noel, N.S.; J. Arnold, Chipman's Brook, N.S.; J. McIntosh, Neguac, N.B.

A line of steamers is being operated by the Royal Mail Steam Packet Co. between Jamaica and New York. This company was recently looking for a contract to operate its steamers between Jamaica and Maritime Province ports.

The Dominion Coal Co. is contemplating putting on another passenger steamer to run between Montreal, Que., and St. John's, Nfld., calling at intermediate ports in Quebec, New Brunswick, Prince Edward Island and Nova Scotia.

The schooner Matilda, which was driven to sea from Bras d'Or Lake, N.S., Nov. 29, was towed into Louisburg, Dec. 8. She was drifting about helplessly and the crew suffering greatly from exposure and shortage of water and provisions.

The old str. New Brunswick, built in 1860, and for many years running between Boston, Mass., and St. John, N.B., was wrecked at Nahant, Mass., during the summer. The hull has recently been sold to junk dealers at Boston, who propose to burn it in order to recover the metal.

Representatives of the companies running freight and passenger steamers on the St. John River met at St. John, N.B., recently to discuss a project for amalgamation. There is a general feeling that something should be done in that direction, but it is considered doubtful whether anything can be arranged.

The Nova Scotian str. Lunenburg, running between Pictou, N.S., and the Magdalen Islands, Que., was wrecked at Amherst Harbor, on one of the islands, Dec. 4. The principal owner of the steamer, R. J. Leslie, M.L.A., Halifax, was on board, and, with ten of the crew, was drowned. Six of the crew were saved.

The Tidal and Current Survey branch of the Department of Marine has issued tide tables for Charlottetown, P.E.I., Pictou and St. Paul Island, N.S., for 1906, with tidal differences for Northumberland Strait, the southwestern side of the Gulf of St. Lawrence, the north coast of Prince Edward Island and Cabot Strait.

The Kennebecasis Steamship Co. has been incorporated under the New Brunswick Companies' Act, with a capital of $20,000 and offices at Hampton, N.B., to carry on a general navigation business within the province. The provisional directors are:—A. T. Mabee, S. H. Flewelling, R. G. Flewelling, A. W. Hicks, of Hampton; and A. B. Moore, of Westfield, N.B.

The wrecking str. Stella Maris, which was purchased in England for a Nova Scotian syndicate, has been stationed at St. John's, Nfld., for the winter. The steamer was the

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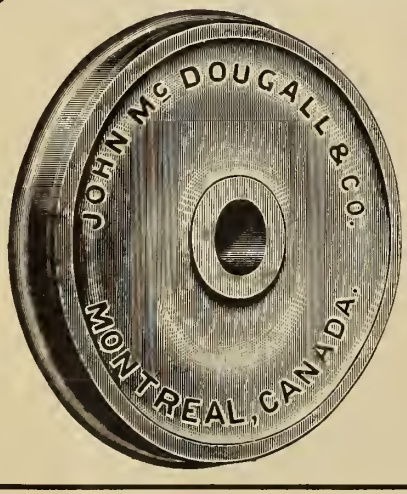

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Sailing from Philadelphia on Saturdays.

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Sailing from New York on Saturdays.

DOMINION LINE.
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MONTREAL TO AVONMOUTH DOCKS, (Bristol and Antwerp.)

LEYLAND LINE.
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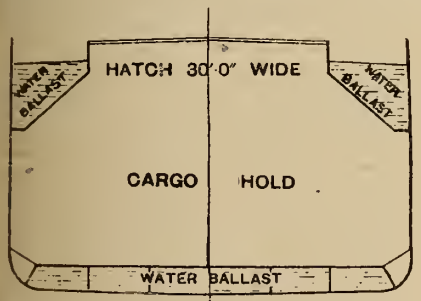
TORONTO; and ST. THOMAS, ONTARIO

British gunboat Starling, which was sold owing to the reorganization of the navy last year. The company has also purchased the Bounce, another gunboat, for use as a tug, and will bring her out in the spring.

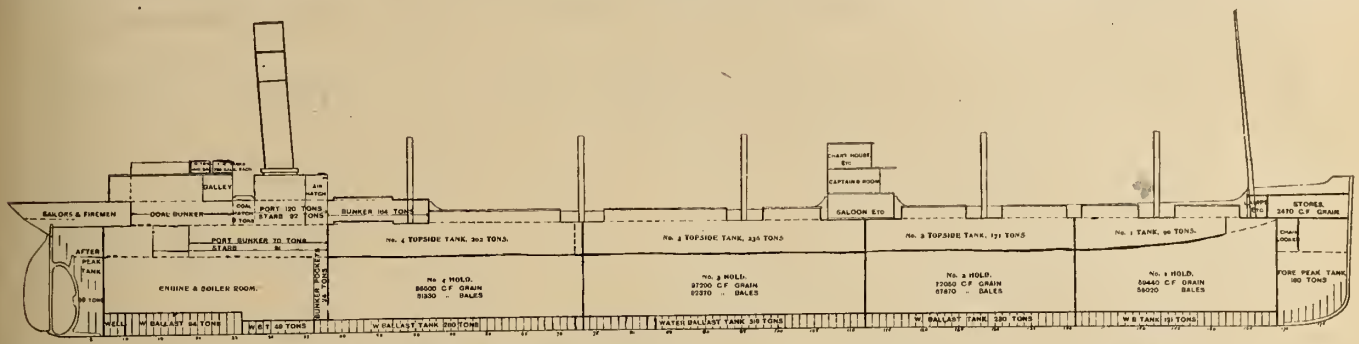
The Dominion steamers Minto and Stanley were equipped with the Marconi Wireless telegraph apparatus for the winter season of navigation, 1904-05, and aided in bringing about a considerable diminution of the expense to the Government in maintaining the service. Owing to the fact, however, that there was no shore station with which these boats could communicate, the best results were not obtained, and this will be remedied for the current season by the erection of a station and mast at Cape Bear, P.E.I.

There are under construction at the yards of Sir Raylton Dixon & Co., Middlesborough-on-Tees, Eng., two steamers for Atkisselskabet Borgestad, Christiana, Norway, and Fearnley & Eger, of the same place, both of which have been chartered by the Dominion Coal Co. for its trade between Sydney, N.S., and Montreal. The steamers are to be of the same dimensions and type as the Christian Knudsen, which was put on the run early in 1905. Capt. Nilsen has arrived at Middlesborough from Sydney to superintend the construction for the D.C. Co. The steamers are constructed on the cantilever frame system with top side water ballast tanks, a perfect self-trimmer, with holds absolutely clear of beams, stanchions or web frames. This enables grabs to work with the greatest facility in discharging cargo. The cellular double bottom has a capacity for 1,320 tons of water ballast, and there is a capacity for 700 tons in the topside tanks, a total of 2,020 tons, sufficient to keep the propeller fully immersed when in water ballast only. This



SECTION DOMINION COAL CO.'S NEW STEAMERS.

cantilever transverse frame construction enables the space contained in the top side water ballast tanks to be excluded from tonnage measurements, with the result that the net tonnage of vessels of the Christian Knudsen type gives a proportion of about three tons dead weight carried for each ton of net register. The dimensions of the two new steamers are practically the same as those for the Christian Knudsen, which follow:—length, 360 ft.; breadth, 51 ft.; depth, 28 ft., 10 in. moulded. The engines are placed in the stern, where also are the quarters for the sailors and firemen; the saloon, captain's room, etc., are amidships, and the stores forward. On the deck there are one mast for signalling, and 10 derrick posts, fitted with 18 derricks, which work through hatchways 30 ft. wide. She carries a dead weight cargo of 6,845 tons on 22.7 ft. draught, and can be loaded in about three hours from the lifts at Sydney, and discharged by grabs in about six hours. The Christian Knudsen has a capacity of 316,380 bush. of grain. She is fitted with triple expansion engine, cylinders, 23½, 39 and 66 in. diameter by 48 in. stroke, to which steam is supplied at 180 lbs. pressure, from two single-ended boilers, 15 ft. by 11 ft. 6 in., having an indicated horse power of 2,000 for a speed of 10½ knots an hour at sea. The coal bunkers have a capacity of 590 tons. A capacity plan and section are given on this page.


SALOONS & FIREMEN
COAL BUNKER
GALLEY
PORT BUNKER 120 TONS
STARB'D 97 TONS
PORT BUNKER 70 TONS
STARB'D
AFTER PEAK TANK
ENGINE & BOILER ROOM
BUNKER 104 TONS
No. 4 TOPSIDE TANK, 302 TONS.
No. 3 TOPSIDE TANK, 236 TONS
No. 2 TOPSIDE TANK, 171 TONS
No. 1 TANK, 96 TONS.
CHART HOUSE ETC
CAPTAIN'S ROOM
SALOON ETC
STORES 3470 C.F. GRAIN
No. 4 HOLD. 86500 C.F. GRAIN 21330 " BALES
No. 3 HOLD. 97200 C.F. GRAIN 22370 " BALES
No. 2 HOLD. 72060 C.F. GRAIN 17870 " BALES
No. 1 HOLD. 50440 C.F. GRAIN 14020 " BALES
FORE PEAK TANK 180 TONS
W. BALLAST 96 TONS
W.B.T. 48 TONS
W. BALLAST TANK 280 TONS
WATER BALLAST TANK 318 TONS
W. BALLAST TANK 330 TONS
W.B. TANK 171 TONS

CAPACITY PLAN OF TWO STEAMERS UNDER CONSTRUCTION TO RUN IN THE DOMINION COAL CO.'S SERVICE.

Province of Quebec Shipping.

J. Blais has been appointed wharfinger at the Government wharf at Berthier, Que.

The C.P.R. is understood to be purchasing land to increase its wharfage facilities at Quebec.

On Dec. 8, the tug Belle towed a batteau down Quebec harbor, and through the floating ice to Indian Cove, Que.

The St. Lawrence Floating and Wrecking Co. has passed a by-law increasing the number of its directors from three to five.

The Montreal City Council proposes to ask the Quebec Legislature next session for authority to expend $50,000 to establish a free ferry to St. Helen's Island.

Tenders are under consideration by the Department of Railways and Canals, for the construction of a concrete wall around St. Gabriel basin no. 1, Lachine Canal.

The Montreal pilots elected the following officers and committee for the current year:—President, W. Gauthier; Secretary, N. Dussault; members of committee: C. Auger, W. Raymond, N. Arcand.

The str. St. Laurent, operated as a ferry steamer between Montreal and Berthier, and also on the St. Helen's Island service, sank at her moorings at Montreal. Dec. 3. The damage is estimated at $2,000.

An order-in-council has been passed approving of a by-law of the Montreal Harbor Commissioners authorizing the leasing to persons, firms, or corporations, for a period not exceeding 10 years, the wharf sheds now under construction.

The directors of the association of Licensed Pilots for and below Quebec for the current season are:—A. Larochelle, A. Pouliot, C. Raymond, J. Talbot, L. Thiberge, L. A. Mourin. The latter is a new member, replacing A. Raymond.

The Department of Marine has arranged for the opening of schools for instruction in seamanship and navigation at Montreal and Quebec the first week in Jan. Capt. Riley has been appointed lecturer at Montreal, and Mr. Seaton at Quebec.

The last coal steamer to leave Montreal was the Bergenhus, which reached Sydney, N.S., Dec. 8; and the last ocean-going steamer was the Lake Michigan, which was piloted down the river and gulf by the icebreaking str. Montcalm. She left Montreal Dec. 4.

During the season of navigation of 1905, there were 11,088 vessels having a tonnage of 2,781,191 tons entered and cleared from Montreal, against 10,027 vessels of 2,348,496 tons in 1904. The number of vessels using the Lachine Canal during the season was: Canadian steamers, 1,050; Canadian barges, 1,477; U.S. vessels, 135, against 799 steamers, 1,334 barges and 151 U.S. vessels in the season of 1904. During the season, 367 vessels carrying 1,388,219 tons of coal from Maritime Province ports, came up the St. Lawrence, of which 336, representing 1,257,208 tons, were landed at Montreal. These figures refer to the coasting trade only, and exclude the oversea trade.

Ontario and the Great Lakes.

During 1905 there were 464 lockages at lock no. 1, Lakefield, Ont., against 216 in 1904.

W. I. Wagg has been appointed wharfinger at the Government wharf at Providence, Bay, Ont.

H. Calderwood, formerly of Collingwood, Ont., has been appointed Bureau Veritas surveyor at Toronto.

The str. Monkshaven has been wrecked near Pie Island, Lake Superior, and is expected to become a total loss.

P. K. Wilson proposes to construct a marine railway at Meaford, Ont., and has applied to the town council for a free site.

The lighthouse at False Ducks Island, 22 miles above Kingston, Ont., was burned Nov. 28. The lighthouse will be rebuilt at once.

A Peterborough, Ont., deputation has asked the Department of Railways and Canals to construct a dock along the Trent Canal there.

The U.S. str. Sylvia sailed from Fort William, Ont., for Buffalo, N.Y., Dec. 4, with a cargo of 326,000 bush. of grain, the record for the port.

The U.S. marshal at Detroit, Mich., has seized the Canadian str. Abani, under repair there, to satisfy a claim for wages by the engineer and pilot.

J. Perkes, Parry Harbor, Ont., has placed an order for a 130 ft. steamer at Meaford, Ont., and orders for three tugs have been placed at the same yard.

The Department of Marine has arranged to open a school for teaching navigation at Kingston, Ont., with Capt. Donnelly as lecturer. The school opens the first week in Jan.

L. Malton, Morrisburg, Ont., has purchased the str. Valeria, from Capt. Dix, Kingston,

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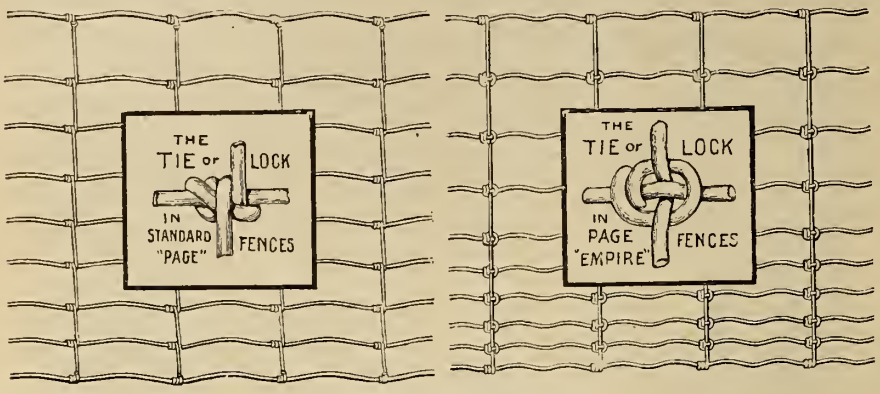

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TERMS OF PAYMENT.

An actual settler may purchase not more than 640 acres, on the ten instalment plan by paying a cash instalment at time of purchase, interest at six per cent. on the unpaid purchase money at the end of the first year, and the balance of the principal with interest in nine equal instalments annually thereafter as shewn in the following table:—

160 Acres at	$3.50	per acre,	cash payment	$83.90,	first year's interest	$28.58	and nine instalments of	$70.00			
" "	4.00	"	"	95.85,	" "	"	32.64	"	"	80.00	
" "	4.50	"	"	107.85,	" "	"	36.73	"	"	90.00	
" "	5.00	"	"	119.85,	" "	"	40.81	"	"	100.00	
" "	5.50	"	"	131.80,	" "	"	44.89	"	"	110.00	
" "	6.00	"	"	143.80,	" "	"	48.98	"	"	120.00	

Purchasers who do not undertake to go into residence on the land are required to pay one-sixth of the purchase money down, balance in five equal annual instalments with interest at the rate of 6 per cent. per annum.

DISCOUNT FOR CASH.

If land is paid for in full at time of purchase, a reduction from price will be allowed equal to ten per cent. on five-sixths of the purchase money.

Interest at six per cent. will be charged on overdue instalments.

F. T. GRIFFIN,
Land Commissioner C.P.R. Co., Winnipeg.

CANADA NORTH-WEST LAND CO.

This Company has 750,000 acres of selected lands in Manitoba and Assiniboia which offer excellent opportunities to settlers and investors who desire to secure good lands in well-settled districts. These lands are on sale at the Company's Office at Winnipeg, and at the various land agencies of the Canadian Pacific Railway Company.

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MANITOBA with its network of railways, giving markets near at hand for all farm products, offers unrivalled opportunities for investment.

PROVINCIAL GOVERNMENT LANDS can still be purchased at from $3 to $6 per acre.

IMPROVED FARMS in all districts of the province can be purchased at from $10 to $40 per acre. These prices are advancing every year.

A FEW POINTERS

On arrival at Winnipeg the wisest policy for any new settler to adopt is to remain in Winnipeg for a few days and learn for himself all about the lands offered for sale and to homestead.

There are districts that have been settled for many years in which land can be purchased. Some of this may be unbroken prairie which still possesses all the richness and productive powers of our virgin prairies. Other lands, cultivated and having comfortable farm buildings, are ready for immediate possession.

There are Provincial Government lands, Dominion Government homesteads, and railway lands to be secured.

The price of land varies from $3 to $40 per acre.

Location with respect to railways, towns, timber and water determines the price of land.

For information regarding homesteads, apply at the Dominion Land Office.

For purchase of Provincial lands apply at the Provincial Land Office in the Parliament Buildings.

For C.P.R. or C.N.R. lands apply at the land offices of said railway companies.

For lands owned by private individuals apply to the various real estate agents in the city.

For situations as farm laborers apply to:

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Ont. The steamer will be placed in the ferry service between Morrisburg, Ont., and Waddington, N.Y.

It is reported that 70 vessels have been lost and 149 vessels wrecked, during the three big storms on the Great Lakes this season. The value of vessels and cargoes is estimated at nearly $7,000,000.

The St. Lawrence and Chicago Navigation Co.'s str. W. D. Mathews went ashore in Mud Lake, near Sault Ste. Marie, Ont., Dec. 4, and part of her cargo had to be removed before she was got off.

A fleet of ice-breaking car ferries to operate between Port Arthur and Batchawana Bay, Ont., is projected as a connection between the Canadian Northern Ry. and Mackenzie, Mann & Co.'s eastern lines.

J. S. Stevenson, Pittsburg, Pa., has placed orders at Kingston, Ont., for a 65 ft. steamer fitted with triple expansion engine, and a 32 ft. gasoline motor, 18 h.p., for Muskoka Lake. Both are to be delivered in June.

J. A. Goodearle, heretofore Assistant Manager Thousand Island and St. Lawrence River Steamboat Co., has been appointed Manager, Turbine Steamship Co., Hamilton, succeeding H. W. Wilson, resigned.

During Nov. the tonnage passing through the canals at Sault Ste. Marie was 5,006,443 tons, bringing the total for the season to Nov. 30, to 43,000,172 tons, an increase of about 12,000,000 tons over 1904 to the same date.

The Toronto ferries stopped running Dec. 15, and navigation generally on the Upper and Lower Lakes, as well as the St. Lawrence River, closed about the same time. The last steamers from Fort William and Port Arthur cleared Dec. 14.

The County of Welland has been held liable for damages for the sinking of the tug Michael Davitt in the Welland Canal in 1904. The tug struck on some piles which had been cut off 4 ft. under the water, by order of the Warden of the county.

The Minister of Railways and Canals has appointed H. Holgate, C.E., Montreal, to make an investigation into the construction of the Peterborough lift lock, where a leak has developed, and to look into the construction of the lift lock now under construction at Kirkfield, Ont.

The director of the Meteorological Observatory, Toronto, reports that of the recent storms over the lake regions, one in Oct. and four in Nov. were specifically forecasted several hours before their arrival, and the necessary warnings sent out. One storm forecasted did not materialize.

The question of the provision of lifeboats and other life-saving appliances at points on the north shore of Lake Ontario, is being brought to the attention of the Department of Marine. This matter was brought specially to notice by the wreck of the schooner Oliver Mowat, near Oshawa, Nov. 28.

The master of the U.S. str. Greyhound during the summer was fined for selling liquor on board while in Canadian waters. An appeal was taken and Chief Justice Meredith decided, Dec. 8, that the Province of Ontario had jurisdiction not only within the three mile limit, but also to the International boundary through the centre of the lakes.

The Lake Erie Navigation Co., a Dominion incorporation, the Ontario license of which has been revoked, was incorporated July 5, 1899, and its offices were at Walkerville, Ont. It was operated in connection with the Lake Erie and Detroit River Ry., and has not been doing business since the railway was sold to the Pere Marquette Rd.

The Montreal Transportation Co. has placed an order for the construction on Georgian Bay of an all steel tow barge, provided with double bottom for water ballast. She will be of full Welland Canal size, and is expected to carry 78,000 bush. on a 14 ft. draft. The contract calls for completion about June 15. The new barge, it is stated, will be 206 ft. long over all, 41 ft. beam, and 19 ft. deep.

The Rochester and Ogdensburg Navigation Co. has been incorporated in the State of New York to carry on a general navigation business on Lake Ontario and the St. Lawrence River. The capital is $50,000, and the provisional directors are:—E. A. Newell, D. R. Armstrong, J. Larock, J. R. Brandy, G. H. Phillips, D. T. Latham, S. Cunningham, J. C. Tulloch, G. Anderson, Ogdensburg, N.Y.

The Opemican River Improvement Co., which was recently incorporated under the Ontario Companies' Act, proposes to improve the navigation of the Opemican and McDougall Rivers, tributaries of the Ottawa River. The promoters are interested in the Hawkesbury Lumber Co. and the W. C. Edwards Co. (Ltd.), and $17,000 has already been expended upon the improvement works.

A large railway ferry is under construction at Cleveland, Ohio, for a run between Port Burwell, Ont., and either Conneaut or Ashtabula, Ohio. The ferry will have accommodation for 28 cars, and will be of specially heavy construction to enable navigation to be kept up during the winter. The C.P.R and the Ellsworth Coal Co. are interested in the ferry, as well as a railway on the U.S. side of the lake.

The Globe Furniture Co., Toronto, has been authorized to increase its capital stock to $100,000, and has been given power to construct tramways, telegraph and telephone lines on properties owned and controlled by it, and to own or charter steam and other vessels, as well as to construct wharves, etc., in connection with its operations. The company operates under an Ontario provincial charter.

R. O. and A. B. Mackay, Hamilton, Ont., are interested in a project to operate a new line of steamers between that port and Montreal. A. B. Mackay proposes to take a trip to England early in the year, to negotiate for the purchase of suitable steamers. Two steamers having accommodation for about 300 passengers, a capacity for 900 tons of cargo, and a speed of 16 miles an hour, now in London, Eng., are under consideration.

The survey parties which were in the field during 1905, in connection with the northern and southern outlets of the Trent Valley Canal, have completed their work. Three routes have been surveyed at either end. The terminal points on Lake Ontario are at Port Hope, Cobourg and Trenton, and the routes from Lake Simcoe to Georgian Bay are via the Severn River, the North River and by Coldwater. Plans and estimates will be made during the winter, and a decision will be reached early in the year as to the routes to be adopted.

The Hamilton Steamboat Co. closed its season Dec. 9, when the Macassa made her last run from Toronto to Hamilton. The report of the directors presented at the annual meeting of shareholders held Dec. 13, showed that freight business had been very good during the year, and over 225,000 passengers had been carried. A dividend of 10 % was declared and the directors re-elected. The company has under consideration a proposal to construct a new steamer with accommodation for 2,000 passengers. M. Leggatt was elected President; G. T. Tuckett, Vice-President, and Miss A. Abraham, Secretary.

The Midland Navigation Co. has placed an order for the construction on the Georgian Bay of a new steel steamer for its Upper Lake trade. We were advised Dec. 14, that the details of the plans had not been finally settled. A press report states that the new steamer will have the following general dimensions:—length, 466 ft. keel, 486 ft. over all; breadth, 55 ft.; depth, 31 ft., carrying capacity, 320,000 bush. She will be fitted with triple expansion engines 23, 38½, and 83 in. cylinders, by 42 in. stroke; steam being supplied by two Scotch marine boilers, 15½ ft. diameter by 12 ft. long, at a pressure of 180 lbs. The new steamer is to be ready in Oct.

Under the provisions of the Act relating to the Department of Railways and Canals, an order-in-council has been passed, adding to the rules and regulations respecting canals, the following provision relating to the wintering of vessels in the canals:—"The privilege of wintering vessels in the Dominion canals shall be enjoyed only by a special permit, to be granted in each case, if deemed advisable, and, if granted, the vessel shall be at the sole risk of its owner, and His Majesty shall not be responsible for any damage that may occur to any such vessel while so wintered, whether such damage happen from or arise out of the lowering of the water in, or the unwatering or filling of the canal, with or without notice to the owner or person in charge of such vessel, or any negligence on the part of any person or any officer, servant or agent of His Majesty or from any other cause whatsoever."

The Ontario Car Ferry Co. has been incorporated under the Dominion Companies' Act, with a capital of $500,000 and offices at Montreal, to own and operate steam and sailing vessels, barges and all other kinds of lighters, floats, etc., to carry by means thereof, loaded railways cars, general freight and passengers, etc., between such ports on Lake Ontario, whether in Canada or the U.S. as may be expedient. The company is also given power to acquire terminal facilities and to enter into agreements with railway companies in Canada and the U.S., for the interchange of traffic, as well as to carry on any other business incidental thereto as may be considered expedient. The company is authorized to issue bonds, debentures and other securities, and may have one or more offices in the United States, and keep duplicate sets of books there. The provisional directors are: C. M. Hays, E. H. Fitzhugh, J. W. Loud, Montreal; A. G. Yates, W. T. Noonan, R. W. Davis, Rochester, N.Y. The provisional directors are either connected with the G.T.R., or the Buffalo, Rochester and Pittsburg Ry., and it is stated that the proposed ferry will be operated between Port Hope, Ont., and Rochester, N.Y. The ferry proposed to be put on the route will have a capacity of 25 cars, and will make one round trip a day.

Manitoba, Alberta, Saskatchewan, Etc.

During the season of navigation of 1905, steamers on the Yukon River carried 20,385 tons of freight to Yukon points, and 5,000 tons to Alaskan points.

Major Moodie recently stated that with Hudson Bay and Hudson Strait properly charted, and lighthouses and beacons along the route, and good wharves at Fort Churchill, there is nothing to prevent successful navigation for four months in the year.

A suggestion has been made that the Department of Public Works should construct booms at mouths of the streams tributary to the Yukon River, with a view of keeping ice out of the main stream, and so enabling navigation to be carried on for a longer period yearly.

One of the steamers caught in the ice on Lake Winnipeg was the Rocket, which was frozen in at the mouth of the Little Saskatchewan River. The Dominion Inspector of Fisheries was on board, engaged in the task

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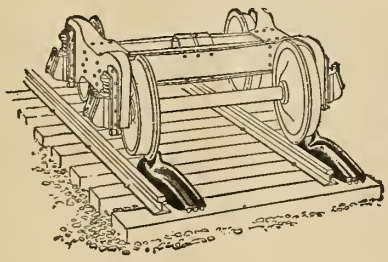

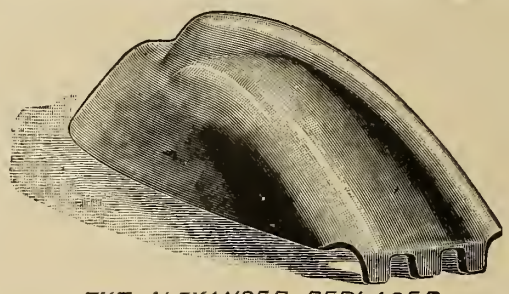

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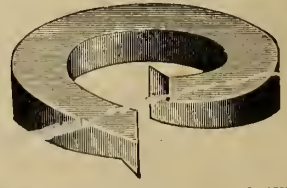

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of collecting spawn. When it was evident that it was impossible to get the steamer out, the boats, etc., were laid up, the fish and spawn collected returned to the water, and the party set out overland for home, a distance of about 150 miles, on Nov. 16. In five days they reached Oak Point, from which point news of their safety was telegraphed.

B.C. and Pacific Coast Shipping.

The Vancouver sealing schooner Fawn, several months overdue, has been given up as lost, with a crew of six white men and 26 Indians.

F. Trapp's steam launch was sunk on the Pitt River, through getting under the government wharf as the tide was rising, recently, and subsequently the tug Lily ran on a sandbar near the same place and was sunk.

The Vancouver Shipmasters' Association has recommended the improvement of the aids to navigation at a number of points, and the provision of additional lights on the B.C. coast. The total number of points affected is 55.

The Dominion Government has completed arrangements for a steamer to call at Graham Island, B.C., every two months, the first trip to be made early in the spring. At present a steamer makes an annual call at the island with mail and provisions.

The Tidal and Current Survey branch of the Department of Marine has issued tide tables for Victoria, B.C., Sand heads, Strait of Georgia and Sitka, Alaska, for 1906, with tidal differences for Esquimalt, Vancouver, New Westminster, Nanaimo, Baynes Sound, Barkley Sound, Alert Bay and Port Simpson; and the current in First Narrows of Burrard Inlet, Seymour Narrows and Sergius Narrows.

There are under construction at Esquimalt, B.C., the following steamers:—new wooden screw steamer for the C.P.R.; a new quarantine steamer for service at William Head, and another steamer for the Dominion Government. The C.P.R. str. Princess May is being overhauled, and will be remodelled internally, while her engines will be refitted and new boilers installed. The str. Danube has been repaired and refitted at the same place, for service as a wrecking steamer at Esquimalt.

Stranding of the S.S. Bavarian.

Following is the judgment delivered in this case by Chief Justice Routhier, of the Admiralty Court of Quebec, and also signed by Commander O. G. V. Spain, R.N., Wreck Commissioner, and Lieut. H. L. L. Pennell, R.N., who sat with Judge Routhier as assessors:

"The Bavarian, commanded by Capt. Brown, left Montreal on the morning of Nov. 3 with a full list of passengers and cargo of freight, bound for Liverpool. She took on board in Montreal a Montreal-Quebec pilot, and continued her voyage to Quebec in a safe and satisfactory manner. On leaving Quebec, Pilot Paul Lachance was taken on board and proceeded down the river in charge of the navigation of the vessel. The Bavarian left Quebec at 7.30 p.m., Nov. 3, the night being moderately clear, with occasional snow flurries. The lights on the Island of Orleans and Madame Island reef gas buoy were fully visible, and Bellechasse light was passed in due course, being quite distinct. The electric lights at Grosse Isle were plainly visible on the port bow and a gas buoy was visible at a distance of about five miles, and nearly right ahead, which gas buoy undoubtedly must have been the St. Thomas shoal gas buoy. At the time of sighting the St. Thomas gas buoy, another gas buoy should have been in sight, broad on the port bow, and in close proximity to the electric lights on Grosse Isle. This gas buoy is known as the Quarantine Gas Buoy, and on looking at the official list of lights as issued by the Marine Department it is placed in this position to enable ships coming up the river to anchor at quarantine. However, by all the evidence adduced, pilots have been in the habit of using the Quarantine Gas Buoy as a leading buoy going down the river. On the occasion in question, the light on this gas buoy had been extinguished for some days and the pilot of the Bavarian, not having been notified that this light was not in position, took for granted that the first gas buoy that he did see, was this particular one, and on this occasion he surmised that he was on the north side of the channel instead of being considerably to the southward, and, therefore, altered his course to bring the St. Thomas gas buoy on his port bow instead of on his starboard. No doubt, in the opinion of the Court, at this period Pilot Lachance, being doubtful about his position, must have taken into his consideration the bearing of the electric lights on Grosse Isle. He stopped the ship and ordered the lead cast. Before this order could be carried out he apparently considered that his ship was on the right course, as he countermanded his instructions about the lead, and ordered the ship at half speed ahead. By the evidence of the captain and the first officer, Crane Island light at this time just ahead came into sight, and it is impossible for the Court to understand how Pilot Lachance should have still been under the impression that the gas buoy on St. Thomas shoal, which was bearing a little on his port bow, could be the Quarantine Gas Buoy, which, by the course he was steering, should have been between himself and the electric lights at Grosse Isle nearly abeam on the port side. Very shortly after this Pilot Lachance, having become fully aware of the mistake he had made, put his helm hard to starboard, and stopped the ship, but not in time to prevent her stranding on the Wye Rock.

"In the opinion of the Court the cause of the stranding of the Bavarian was on account of Pilot Lachance not paying sufficient attention to his compass courses after passing Bellechasse light, and putting implicit reliance on the Quarantine Gas Buoy, although the gas buoy which he did pick up was on his starboard bow instead of his port. This fact, in conjunction with the knowledge he must have had, if he had taken into consideration that the Quarantine Gas Buoy should have been between himself and the electric lights at Gosse Isle, which were plainly visible, should have warned him of his mistake in time to have avoided the catastrophe. The Court considers that the practice of pilots in altering their course on gas buoys which are liable, for various reasons, to be out or out of position, is a very reprehensible one; more especially as in this present instance when the first buoy he expected to see was picked up on the starboard bow instead of the port. The Court is also of the opinion that the Secretary of the Corporation of Pilots in Quebec, and also the pilots at Father Point, should be informed on every occasion by the Department of Marine and Fisheries in Quebec when aids to navigation are reported out of position, or on any changes being made. And although by the evidence of the Agent of the Department in Quebec, the gas buoy at quarantine was not considered by him an aid to navigation in the way of a leading buoy, Pilot Lachance evidently considered it a leading buoy, and when the Department received information that the buoy was out, the pilots' office should have been notified immediately. The Court also considers that the evidence as given by some of the pilots during the investigation was unsatisfactory, more especially in regard to the statements

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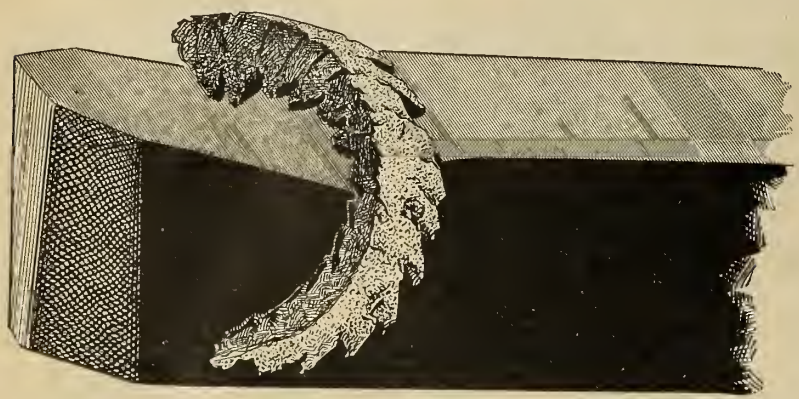

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made that it was impossible to distinguish the difference between lights at a distance of 1½ and 4½ miles, and also by acknowledging that they considered it safe and prudent navigation to navigate their vessels simply on the uncertain position of one buoy. The Court also considers that if Pilot Paquet had not intruded on the upper bridge of the Bavarian the judgment of Pilot Lachance, which, up to the present unfortunate disaster had been above reproach, would have been unbiased. The Court considers that the captain and officers of the Bavarian are not in any way to blame for the disaster, but that Pilot Lachance, through careless navigation, is responsible, and the Court therefore, after taking his excellent character and previous good record into consideration, suspends his license as a pilot till July, 1907."

Notices to Mariners.

The Department of Marine has issued the following:—

No. 108. Nov. 9.—Nova Scotia—242. South coast, Lunenburg whistling buoy replaced by gas and whistling buoy. Prince Edward Island—243. Charlottetown, pile beacons replaced by buoys, railway bridge constructed.

No. 109. Nov. 10.—Nova Scotia—244. Bay of Fundy, Lurcher shoal, lightship replaced at her station. 245. South Coast, approach to Halifax, outer automatic whistling buoy replaced by gas and whistling buoy.

No. 110. Nov. 10.—British Columbia—246. Straits of Georgia, Sandheads of Fraser River, bell buoy established. 247. Strait of Georgia, sandheads of Georgia, sandheads lightship at entrance to Fraser River, erratum.

No. 111. Nov. 17.—British Columbia—248. West coast of Vancouver Island, Barkley Sound, hydrographical notes. 249. South coast Vancouver Island, Strait of Juan de Fuca, Clo-oose, position of village, telephone communication.

No. 112. Nov. 20.—Ontario—250. Lake Huron, Goderich, new breakwater damaged, caution.

No. 113. Nov. 25.—Nova Scotia—251. Bay of Fundy, basin of Minas, Noel Bay, light on Noel wharf. 252. South coast, approach to Ecumsecum inlet, buoys established.

No. 114. Nov. 27.—Ontario.—253. Lake Huron, north channel, Aird Island, Little Detroit, wreck removed. 254. Lake Superior, Caribou Island, character of light unchanged.

No. 115. Nov. 27.—Nova Scotia—255. Cape Breton Island, Gulf of Canso, McMillan point, lighthouse established. New Brunswick.—256. East coast, Miramichi Bay, Hay Island, new front range tower.

No. 116. Nov. 29.—Nova Scotia—257. Bay of Fundy, Chignecto channel, Shulie, lighthouse established.

No. 117. Nov. 29.—Ontario—258. Lake Ontario, west end, Burlington bay, new front range lighthouse. 259. Lake Erie, Port Dover, new front range lighthouse. 260. Lake Erie, Rondeau harbor, new front range lighthouse.

Longshoremen at St. John, N.B.

On the arrival of the Allan Line SS. Parisian at St. John, N.B., on Nov. 20th, the longshoremen who were awaiting her arrival refused to work unless paid at the rate of 35c. an hour, last season's rate being 30c. an hour day and night, and 40c. for grain work. H. and A. Allan did not see their way to accede to the men's demand, and at the time no other men being available to work, the discharging was done by the crew. On the arrival of H. A. Allan, President of the Shipping Federation of Canada, from Montreal, he was interviewed by the union leaders and gave them plainly to understand that his and the other firms had fully made up their minds to grant no increase, and if the men did not come in on the old terms he would bring men from Montreal to load and discharge their vessels, and possibly take their ships to other ports for the winter. As the men were determined to hold out, the Montreal Federation despatched 40 laborers from Montreal who started work on the Parisian the next day. The following day 20 others and 30 for the Donaldson Line arrived. A number of these were induced by the strikers to leave their work, but the majority remained, and the Parisian having finished her loading sailed on time, on Nov. 26.

On Nov. 26 five more gangs were taken down for the C.P.R.'s SS. Montezuma and the Head Line Str. Bengore Head. The Allan Line Sicilian arrived on Nov. 27 from Halifax, where she discharged her through freight, and the imported men were at once started on her. In all, 260 men were imported into St. John, and on Nov. 28 a meeting of the strikers was held, at which several speakers pointed out the loss that would result to the city and themselves if they continued the strike, and urged the men to return to work on the old terms. Others at the meeting urged the men to hold out with the result that no decision was arrived at. On the morning of Nov. 28, some union men returned to work at the old terms. By mid-day nearly all the vacancies were filled with local men, and the strike had practically collapsed, the men accepting the same terms as last year, that is, 30c. an hour day and night, and 40c. for grain trimming.

Had the shipping people conceded a 35c. rate it would have made the wages at St. John, with one exception, the highest of any port in North America, that exception being Quebec, where 37½c. is paid, and where the union has practically driven trade away from the port. In New York, where living is much higher, 30c. is the rate paid ship laborers. In Hoboken, the Hamburg-American and other German Lines pay their laborers 25c. At Halifax the rate is 20c. At Newport News and Baltimore the rate is 20c. So when all things are taken into consideration, the shipping people are to be congratulated in bringing this question to such a successful issue, and much credit is due to the Montreal shipping men and their splendid organization, which practically controlled the situation, and shows the people of other shipping ports that as well as dealing with the different work that usually falls to such bodies as the Chamber of Commerce in England, the organization is complete, and able to counteract any evil effect from union excesses.

International Waterways Commission.

The U.S. section of the International Waterways Commission has presented a progress report to the Secretary of War at Washington. The section refers to the number of questions that have been raised, and asks for further instructions from Congress. Among the questions referred to are the following:—

The uses of the waters in the Niagara River for power purposes and the regulations necessary to ensure an equitable division of the waters between Canada and the U.S. and the protection of Niagara Falls as a scenic spectacle.

The alleged differences in the marine regulations of the two countries with respect to signal lights and the advisability of adopting uniform signals for both countries.

The advisability of building controlling works at the outlet of Lake Erie, including

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NOTICE is hereby given that a dividend of four per cent. (being at the rate of eight per cent. for the year) has been declared upon the capital stock of this company, and the same will be payable on the 2nd of January, 1906. The transfer books will be closed from the 17th December to the 31st December, 1905, both days inclusive.

By order of the Board.

E. B. OSLER, President.

Toronto.

NOTICE.—The Canadian Pacific Railway Company will apply to the Parliament of Canada, at its next session, for an Act extending the time within which it may construct the railway from Stonewall or Teulon to a point on the east shore of Lake Manitoba which it was authorized to construct by section one of chapter fifty-four of the Dominion Statutes of 1901, and the time within which it may construct the railway from New Westminster to Vancouver mentioned in chapter 62 of the Dominion Statutes of 1904, and for other purposes.

CHARLES DRINKWATER,

Secretary.

Dated 30th November, 1905

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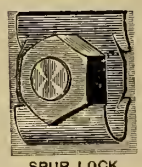

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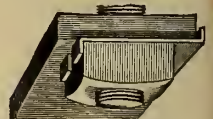

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AGENT

the effect upon the levels of the lakes and upon their shores, and upon the River St. Lawrence.

The diversion southward of certain waters in the State of Minnesota that now flow north into the Rainy River and the Lake of the Woods.

The effect of the Chicago drainage canal upon the levels of Lakes Michigan, Huron, Erie, and Ontario, and upon the River St. Lawrence.

Delimiting the International boundary on the International waterways and delineating the same on modern charts.

The suppression or abatement of illegal fishing on the Great Lakes.

The location and construction of common channels.

According to the report some of these questions clearly come under the jurisdiction of the Commission as constituted, while some do not, and there is room for doubt with respect to others. The Canadian members of the Commission are ready and anxious to consider all these questions and to extend the jurisdiction of the Commission to all International waters between the Atlantic and Pacific Oceans. It is, the report states, desirable that the wishes of Congress in this matter be more clearly defined. Since it completed its organization in Sept. last, the Commission has made progress in the collection, of data upon some of these questions, particularly those relating to the use of water at Niagara Falls, and to the regulation of the level of Lake Erie by works near its outlet. The Commission on Oct. 28, adopted the following resolution: "Resolved, that this Commission recommends to the Governments of the U.S. and Canada, that such steps as they may regard as necessary be taken to prevent any corporate rights or franchises being granted or renewed by either Federal, State or Provincial authorities for the use of the waters of the Niagara River for power or other purposes until this Commission is able to collect the information necessary to enable it to report fully upon the 'conditions and uses' of those waters to the respective Governments of the U.S. and Canada."

The most pressing questions, according to the report, relate to the use of water at Sault Ste. Marie, where the traffic through the canals constructed at the rapids is said to be larger this year than ever before, it being estimated at upwards of 40,000,000 tons for the year.

The Canadian section of the Commission will report to Parliament on its meeting. Meanwhile it has obtained a report from Abbe La Flamme, Que., upon the retrocession of Niagara Falls. He says that the retrocession will not affect the Canadian side, the Canadian fall is 10 ft. lower than the American fall, and the water bears towards Canada. When the power companies on the Canadian side are in full operation and abstracting 48,000 cubic feet of water a second, the water level of the river will almost reach the bottom of the river at the New York side. The further multiplication of power companies above the falls will bring about the disappearance of the U.S. falls, and will materially affect the Horseshoe Falls. The extent and character of the retrocession constantly varied and no absolute data were obtainable.

The Dominion Government proposes to ask the Ontario Government to unite with it in taking action to preserve the falls.

Official announcement was made Dec. 2, of the appointment of G. C. Gibbons, London, Ont., as chairman of the Canadian section of the International Waterways Commission, in succession to J. P. Mabee, K.C., appointed a Judge of the Supreme Court of Ontario. The appointment of T. Cote, Ottawa, as Secretary of the Canadian section of the Commission, was also gazetted, the appointment to date from Feb. 20, 1905.

Among the Express Companies.

The Canadian Ex. Co. has closed its offices at Murray Bay, Que., and Flat Lands, N.B.

J. MacMillan, heretofore in the Dominion Ex. Co.'s audit office, Toronto, has been appointed cashier Canadian Northern Ex. Co., Winnipeg, Man.

The Western Ex. Co. has placed its service on the new line of the Minneapolis, St. Paul and Sault Ste. Marie Ry. between Thief River Falls and Kenmare, N.D.

A. M. Patterson has been appointed Acting Route Agent, Canadian Ex. Co., at St. John, N.B., succeeding LeB. Coleman, appointed agent at Halifax, N.S.

The Canadian Northern Ex. Co.'s uptown office at Edmonton, Alta., will be located on Jasper Ave., where the company proposes to erect a large building.

The joint summer service of the Canadian Ex. Co. and the Canadian Northern Ex. Co., on he steamers of the Northern Navigation Co., on Lake Superior, has been suspended until the spring.

The Dominion Ex. Co. has notified its agents that shipments for points on the Canadian Northern Ex. Co. west of Warman Jct., Sask., should be way-billed to Warman Jct. for transfer.

The Canadian Ex. Co. carried about 5,000 deer from the Muskoka district of Ontario during the recent shooting season. The Dominion Ex. Co. did not carry so many deer as the Canadian Ex. Co., but carried more moose.

The Dominion Ex. Co. has opened offices at Alix, Bittern Lake, Camrose, Chigwell, Gwynne, Tees, Alta.; Lake View, Seebosis, Skinner, Me.; and has changed names of its offices as follows: Bristol Station, Que., to Maryland, and at Togo, Sask., to Komura.

The Dominion Ex. Co. has opened agencies for the payment of its money orders at Annapolis, Berwick, Bridgewater, Canning, Chester, Digby, Hantsport, Kentville, Liverpool, Lunenburg, Mahone Bay, Weymouth, Windsor, Wolfville and Yarmouth, N.S.

The Canadian Northern Ex. Co. has extended its service over the Rossburn section of the Canadian Northern Ry., reaching the following points: Springhill, Orrville, Fotherby, Clanwilliam, Erickson, Sandy Lake, Elphinstone, Glenforsa, Menzie, Oakburn, Vista, and Rossburn, Man.

The Canadian Northern Ex. Co. will shortly extend its service on the new line to be opened by the Canadian Northern Ry. between Winnipeg and Brandon, Man., serving the following points: McArthur, Edwin, Rossendale, Lavenham, Ladysmith, Pratt, Arizona, Pleasant Point, Onah, Shilo, Leon, Man.

The Dominion Ex. Co.'s agents at common points with the Canadian Ex. Co., are authorized to accept shipments destined to Amherstburg, Ont., an exclusive office of the American Ex. Co., and way-bill through to destination at one graduate on the rates quoted in list of through rates furnished by the Tariff Department, and route via Windsor, Ont.

The Canadian Northern Ex. Co. appointed agents at the following points on the Canadian Northern Ry. lines over which it operates: Banning, Ont.; Homewood, Greenway, Lowe Farm, Oak Point, Rounthwaite, Rossendale, Rossburn, St. Laurent, Underhill, Wakopa, Mattawin, Wadena, Watson, Warman, Man.; Tisdale, Lloydminster, North Battleford, Radisson, Vermilion, Humbolt, Paynton, Langham, Warman, Vonda, Sask.; Edmonton, Fort Saskatchewan, Vegreville, Alta.

NOTICE.—The Columbia and Kootenay Railway and Navigation Company will apply to the Parliament of Canada, at its next session, for an Act extending the time within which it may construct and complete the railways and branches mentioned in chapter 41 of the Dominion Statutes of 1897, and for other purposes.

H. C. OSWALD,
Secretary.

Dated 30th November, 1905.

NOTICE.—The Great North-west Central Railway Company will apply to the Parliament of Canada, at its next session, for an Act extending the time within which it may construct the two hundred miles of its railway mentioned in chapter 124 of the Dominion Statutes of 1903, and for other purposes.

GEO. A. WALKER.
Secretary.

Dated 30th November, 1905.

NOTICE.—The Kootenay and Arrowhead Railway Company will apply to the Parliament of Canada, at its next session, for an Act extending the time within which it may construct the railway and branches which it was by its Act of Incorporation authorized to construct, and for other purposes.

H. C. OSWALD,
Secretary.

Dated 30th November, 1905.

NOTICE.—The South Ontario Pacific Railway Company will apply to the Parliament of Canada, at its next session, for an Act extending the time within which the company may construct and complete the railways and bridge which it has been authorized to construct, and for other purposes.

CHARLES DRINKWATER,
Secretary.

Dated 30th November, 1905.

NOTICE.—The Vancouver and Lulu Island Railway Company will apply to the Parliament of Canada, at its next session, for an Act extending the time within which it may construct the railways and branches which it has been authorized to construct, and for other purposes.

H. C. OSWALD,
Secretary.

Dated 30th November, 1905.

NOTICE.—The Nakusp and Slocan Railway Company will apply to the Parliament of Canada, at its next session, for an Act extending the time within which the company may construct and complete the railways which it has been authorized to construct, and for other purposes.

H. C. OSWALD,
Secretary.

Dated 30th November, 1905.

NOTICE.—The Campbellford Lake Ontario and Western Railway Company will apply to the Parliament of Canada, at its next session, for an Act extending the time within which it may construct its railway, and for other purposes.

H. C. OSWALD,
Secretary.

Dated 30th November, 1905

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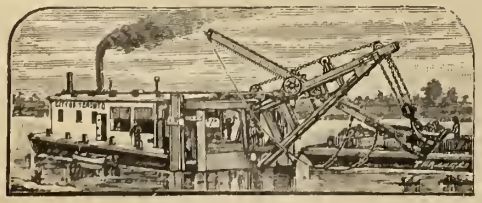

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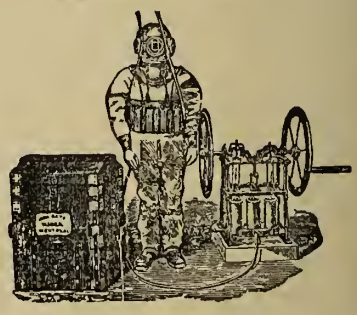

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The Canadian Northern Ex. Co. has extended its operations over the main line of the Canadian Northern Ry., which has reached Edmonton, Alta. West of Humbolt, Sask., the points reached by the company's service are: Carmel, Bruno, Dana, Howell, Vonda, Aberdeen, Warman, Dalmeny, Langham, Elbow, Radisson, Fielding, Maymont, Ruddell, Denholm, Brada, North Battleford, Battleford Jct., Highgate, Delmas, Bresaylor, Paynton, Birling, Maidstone, Waseca, Lashburn, Marshall, Aberfeldy,. Lloydminster, Blackfoot, Kitscoty, Islay, Borradante, Sask.; Vermilion, Claysmore, Manville, Minburn, Innisfree, Ranfurly, Lavoy, Vegreville, Raith, Mundare, Chipman, Lamont, Bruderheim, Scotford, Fort Saskatchewan, Oliver and Edmonton, Sask.

Telegraph and Cable Matters.

The C.P.R. Telegraph Department is arranging for the opening of an up-town office in Lethbridge, Alta.

The Great Northwestern Telegraph Co. has announced a reduction in its rates from Ontario and Quebec points, to a number of offices in Newfoundland, from $1.10 to 90c.

G. W. Lloyd, who has been appointed District Superintendent Western Union Telegraph Co. at Atlanta, Ga., is a native of London, Ont., and began his telegraph career in that city.

Residents of the district are asking for the construction of a branch telegraph line from North Sydney to Escasoni, N.S., in connection with the Government line round Cape Breton Island.

W. Barber, one of the directors of the Anglo-American Telegraph Co., is one of the principal promoters of a project to construct a motorway from London to Brighton, Eng., about 50 miles.

The Marconi Wireless Telegraph Station at Cape Bear, P.E.I., for use in connection with the winter steamship service, was expected to be completed and in operation by the end of Dec.

The cable connecting Anticosti Island with the mainland at Gaspe broke early in Dec. The question of putting up a Marconi Wireless station on the island is being considered by the Dominion Government.

The C.P.R. Telegraph Department has appealed against its local office at London, Ont., being assessed for income under the new Ontario Assessment Act, claiming that it is part of the railway system and not assessable.

The Western Union Telegraph Co. has acquired the stock of the Maine Telegraph Co., which was established in 1850. The line extends from Bangor to Calais, Vanceboro, Rockland, Bath, Augusta, Lewiston, Portland, Me., and Boston, Mass.

The Canadian Northern Telegraph Co. has opened offices at Fork River, Goodlands, Harding, Hilton, Lorette, Mafeking, Marchand, Oak Point, Ogilvie, Purvis, Rossburn, St. Laurent, Sanford, Stockton, Underhill, Wakopa, Man.; Humbolt, Invermay, Maymont, Melford, North Battleford, Paynton, Raddison, Sask.; Vegreville, Vermilion, Vonda, Wadena, Alta.

The C.P.R. Telegraph Department has opened offices at Glacier Hotel, Maryville, Poplar, Ryan, St. Eugene, B.C.; Balcarres, Belleplaine, Bienfait, Camrose, Cupar, Earl Grey, Filmore, Forget, Francis, Grand Coulee, Heward, Kroneau, Leavings, Lemberg, Portland, Redvers, Staveley, Stoughton, Strassburg, Theodore, Walsh, Sask.; Bothwell, Osaquin, Westfort, Ont.; Bouchette, Point Claire, Que.

Hon. A. M. Mackay, General Superintendent Anglo-American Telegraph Co. in Newfoundland, died at St. Johns, Nfld., Nov. 20. He was appointed Superintendent of the New York, Newfoundland and London Telegraph Co. at the time it was establishing its land lines in Newfoundland, prior to the laying of the first Trans-Atlantic cable, and remained with the company and its successor, the Anglo-American Telegraph Co., in Newfoundland, until his death.

It is intended that the telegraph line of the G.T. Pacific Ry. shall be constructed simultaneously with the railway, but we were advised Dec. 4, that just how many miles and between what points would be constructed immediately, had not been fully determined. The letting of the recent contract for 30,000 telegraph poles was preliminary to securing the number necessary to erect the live on the Lake Superior branch and on the section west of Winnipeg after the ties and steel have been laid.

The New Brunswick Electric Telegraph Co.'s stockholders met at Rothesay, N.B., Dec. 4, for the purpose of ratifying a lease of its lines to the Western Union Telegraph Co. The company owns the main telegraph line from the International boundary at St. Stephens to Sackville, which has been operated for many years by the W. U. T. Co. This lease, which was for a rental at the rate of 10% on the company's stock, expires in Feb. The new lease provides for a payment equal to 6% on the capital stock of the local company.

The Canada Atlantic Ry. telegraph system which was recently taken over with the railway by the G.T.R., extends from Depot Harbor, Georgian Bay, to Aldburgh Jct., Vt., with three branches, one from Golden Lake to Pembroke; one from South Indian to Rockland, and a third from Glen Robertson to Hawkesbury, Ont. Under the C.A.R. charter power was given to construct a line off the main line for a connection for a distance of about six miles. The telegraph line is being operated by the G.T.R. through its Ottawa Division.

The G.N.W. Telegraph Co. recently completed the stringing of a number of new heavy copper wires at various points between Windsor, Ont., and Halifax, N.S., and St. John, N.B. The company has been providing direct service between the larger commercial centres, and some of the nearby points in the U.S., through its connection with the Western Union Telegraph Co. Direct circuits are now operated between Toronto, Winnipeg, Ottawa, Montreal, Detroit, Chicago, Buffalo and New York, as well as a number of smaller cities in Ontario and Quebec, and the principal cities in the Maritime Provinces.

General Telephone Matters.

The Bell Telephone Co. is carrying out extensive improvements to its lines and of its exchange at North Bay, Ont.

The reorganization and extension of the telephone system of Nelson, B.C., was expected to be completed at the end of Dec., 1905.

The G.T.R. is operating through its Ottawa Division (the old Canada Atlantic Ry.) a telephone line from Ottawa to Depot Harbor, Ont.

The Bell Telephone Co. has purchased a lot on Dalhousie St., Brantford, Ont., 51 ft. frontage, on which it is proposed to erect a new exchange.

The British Columbia Telephone Co. has notified the North Vancouver town council that it will not be able to complete the installation of the telephone system there until June 1.

The B.C. Telephone Co. is preparing to erect a building on Seymour St., Vancouver, and to instal therein a new central energy switchboard. The cost of the improvement is estimated at about $100,000.

A PERSONAL APPEAL

THE HOSPITAL FOR SICK CHILDREN

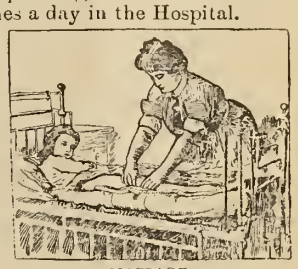
The Hospital for Sick Children, College street, Toronto, appeals to fathers and mothers of Ontario for funds to maintain the thousand sick children that it nurses within its walls every year.

The Hospital is not a local institution—but Provincial. The sick child from any place in Ontario who can't afford to pay has the same privileges as the child living in Toronto and is treated free.

NURSE READING A STORY.

The Hospital had last year in its beds and cots 891 patients—316 of these were from 217 places outside of Toronto. The cost is 1.14 cents per patient per day, and there were 133 sick little ones a day in the Hospital.

Since its foundation the Hospital has treated 11,262 children. About 3,000 of these were unable to pay and were treated free.

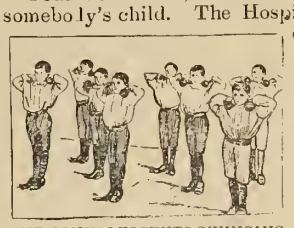


MASSAGE.

Your money can put golden hinges on the door of the Hospital's mercy.

Everybody's dollar may be the Friend in Need to Somebody's child.

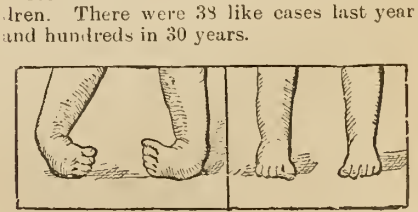
Your dollar may be a door of hope to somebody's child. The Hospital pays out dividends of health and happiness to suffering childhood on every dollar that is paid by friends of little children.



THE CONVALESCENTS SWINGING DUMB BELLS.

If you know of any child in your neighborhood who is sick or crippled or has club feet send the parent's name to the Hospital.

See what can be done for club-foot children. There were 38 like cases last year and hundreds in 30 years.



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An invitation is extended to any Hotel Proprieto manager or clerk outside of New York, or Railroa official whose name appears in the Pocket List Officials, or any member of the International Associ tion of Coupon Railway Ticket Agents, to accept t hospitality of our hotel for three days WITHOU CHARGE. This offer is made in order to establi a headquarters for Railroad officials and Hotel me

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Mfrs. of Set, Cap and Special Screws, Studs, Finished Nuts, etc.

The Canadian Machine Telephone Co. is proceeding with the installation of its telephone system in Peterborough, Ont. A local paper states that the new instrument works satisfactorily, and the installation, so far as it has gone, is giving good service.

The Bell Telephone Co. has extended its lines in the Gatineau valley, Que., and has opened offices at North Wakefield, Wakefield, Kirk's Ferry, Cascades and Chelsea. It is intended to open offices early in the spring at Old Chelsea, Kingsmere and Cantley, also on the extension.

The Central Telephone Co. has completed a line through Sheffield, Maugerville, Barker's Point and Lower St. Marys, and proposes to continue it into Fredericton, N.B. An office will be opened in Fredericton, and it is proposed to make connection there with Union Telephone Co.'s lines.

The Bell Telephone Co. has been fined $10 by the Recorder at Montreal, for neglecting to take out a license for its slot telephones or public pay stations. The company claimed that these did not come within the provisions of the city by-law requiring licenses to be taken out for automatic or slot machines.

We have been advised that while no definite action has been taken by the Manitoba Government as regards the construction and organization of a provincial telephone system, such a system will probably be constructed under the public works department. This, however, is subject to any decision that may be arrived at later, after further discussion.

The Bell Telephone Co. has constructed a party line from Lindsay to Linden Valley post office, Ont., 8 miles; and will extend its line from Argyle to Eldon Station, Ont., five miles. The Woodville, Ont., toll office in the same vicinity is to be converted into an exchange office, and some other improvements are contemplated on the lines in the Lindsay district.

The Brantford, Ont., City Council has under consideration offers from the Canadian Machine Telephone Co., and the Ontario Telephone Co., to equip a telephone system in the city. The telephone committee, which has been looking into the matter, recommends the adoption of the proposal of the first mentioned. The agreement suggested provides for a 21 years' franchise at $25 for business and $15 for private instruments, with provisions for the city to acquire the lines at a valuation under certain conditions.

The franchise and plant of the Cumberland Telephone Co. were sold at auction by the liquidator, at Amherst, N.S., Nov. 29. The purchaser was Dr. C. W. Hewson, the price being $14,000. It is stated that Dr. Hewson was acting on behalf of a local syndicate, and that a new company will be organized. The company was organized about three years ago with a capital of $50,000, all subscribed by Cumberland people, of which 20% was paid up. It had over 70 miles of line, extending from Amherst to Oxford, Amherst to North Port, thence to Pugwash, and Amherst to Tignish and Amherst Shore, and some 350 telephones in use at a charge of $12 a year each. The property sold included a quantity of wire, a number of insulators, and all the tools used in construction work. After the company had expended $19,000, while only $10,000 of capital was available, it had to go into liquidation.

The Minister of Marine, in an interview in London, Eng., is reported to have expressed himself as well satisfied with the results of his negotiations with the British Admiralty as to the taking over of the dockyards at Halifax, N.S., and Esquimalt, B.C., and the establishment of a Canadian naval militia.

PURCHASING AGENTS' GUIDE.

(Continued from third page of cover.)

Electric Ry. Brake Shoes
American Brake Shoe & F'dry Co...Mahwab, N.J.

Electric Railway Builders
F. T. Ley & Co.....Springfield, Mass.

Electric Ry. Supplies
J. A. Dawson & Co.....Montreal.

Electric Supplies
J. A. Dawson & Co.....Montreal.

Enameled Iron Signs
Acton Burrows Co.....Toronto.

Engineers, Consulting
H. W. Breithaupt.....Berlin, Ont.

Engineers' Supplies
Canadian Fairbanks Co.....Montreal.
The Canadian Rubber Co. of Montreal.
Williams & Wilson.....Montreal.

Engines, Automatic
Robb Engineering Co.....Amherst, N.S.

Engines, Corliss
Robb Engineering Co.....Amherst, N.S.

Engines, Gasoline
Goold, Shapley & Muir Co.....Brantford, Ont.
Ontario Wind Engine and Pump Co.....Toronto.

Engines, Hoisting
M. Beatty & Sons.....Welland, Ont.

Engines, Stationary and Marine
Canada Foundry Co.....Toronto.
H. W. Petrie.....Toronto.
Polson Iron Works.....Toronto.
Robb Engineering Co.....Amherst, N.S.

Engines, Steam
Williams & Wilson.....Montreal.

Engraving
Rolph & Clark (Ltd.).....Toronto.

Engraving (Copper and Steelplate)
Rolph & Clark (Ltd.).....Toronto.

Excavators
Vulcan Iron Works.....Toledo, Ohio.

Express Office Signs
Acton Burrows Co.....Toronto.

Feedwater Heaters
Canadian Fairbanks Co.....Montreal.
H. W. Petrie.....Toronto.
Robb Engineering Co.....Amherst, N.S.
Williams & Wilson.....Montreal.

Fencing
Canada Foundry Co.....Toronto.
McGregor, Banwell Fence Co....Walkerville, Ont.
Owen Sound Wire Fence Co....Owen Sound, Ont.
Page Wire Fence Co.....Walkerville, Ont.

Fire Brick
W. H. C. Mussen & Co.....Montreal.

Fire Escapes
The G. B. Meadows Wire, etc., Co.....Toronto

Fire Insurance
Dale & Co.....Montreal.

Fireproof Building Material
A. B. Ormsby (Ltd.).....Toronto.

Flags
The Hudson's Bay Co.....

Flour
The Hudson's Bay Co.....

Forgings
Canada Car Co.....Montreal.
Crossen Car Mfg. Co.....Cobourg, Ont.
General Railway Signal Co.....Buffalo, N.Y.
Standard Steel Works.....Philadelphia, Pa.

Gasoline Engines
Canadian Fairbanks Co.....Montreal.

Gas Pipe (Cast Iron)
Gartshore-Thompson Pipe & F'dry Co., Hamilton.

Gates
Canada Foundry Co.....Toronto.
McGregor, Banwell Fence Co....Walkerville Ont.
Owen Sound Wire Fence Co....Owen Sound, Ont.
Page Wire Fence Co.....Walkerville, Ont.

Gears (Heavy)
W. Kennedy & Sons (Ltd.).....Owen Sound Ont.

Generators
Charles F. Johnson.....Buffalo, N.Y.

Grain Elevators
John S. Metcalfe Co.....Chicago, Ill.

Groceries
The Hudson's Bay Company.....

Hammers
James Smart Mfg. Co.....Brockville, Ont.

Handcars
Crossen Car Mfg. Co.....Cobourg, Ont.
F. H. Hopkins & Co.....Montreal.
W. H. C. Mussen & Co.....Montreal.
Toronto Pressed Steel Co.....Toronto.

Hardware
The Hudson's Bay Company.....

Headlights
N. L. Piper Railway Supply Co.....Toronto.

Headlinings
Crossen Car Mfg. Co.....Cobourg, Ont.

Hoppers, Car, Wet or Dry
Duner Co.....Chicago, Ill.

Hose, Air Brake and Steam
The Canadian Rubber Co. of Montreal.

Hose, Fire
The Canadian Rubber Co. of Montreal.

Hose, Suction
The Canadian Rubber Co. of Montreal.

Hydrants
Kerr Engine Co.....Walkerville, Ont.

Illustrations
Acton Burrows Co.....Toronto.

Inspections
R. W. Hunt & Co.....Montreal.
H. Jarvis & Co.....Chicago, Ill.

Instruments, Surveying and Engineering
Eugene Dietzgen Co.....New York.
James Foster.....Toronto.

Insurance (Fire and Marine)
Dale & Co.....Montreal.

Interlocking and Signalling
General Railway Signal Co.....Buffalo, N.Y.

Interlocking Signals
Montreal Steel Works.....Montreal.

Iron Fencing
The G. B. Meadows Wire, etc., Co.....Toronto.

Iron, Pig
John McDougall & Co.....Montreal.

Iron Signs
Acton Burrows Co.....Toronto.

Jacks
James Smart Mfg. Co.....Brockville, Ont.

Japans
McCaskill, Dougall & Co.....Montreal.

Journal Bearings
Canada Foundry Co.....Toronto.
Canadian Bronze Co.....Montreal.
Crossen Car Mfg. Co.....Cobourg, Ont.
Kerr Engine Co.....Walkerville, Ont.
Jas. W. Pyke & Co.....Montreal.
St. Thomas Brass Co.....St. Thomas, Ont.

Journal Boxes
N. J. Holden & Co.....Montreal.

Lager Beer, &c.
E. L. Drewry.....Winnipeg.

Lamps, Incandescent
Canadian Westinghouse Co.....Hamilton, Ont.

Lamps and Lanterns
The Hudson's Bay Company.....
The Hiram L. Piper Co.....Montreal.
N. L. Piper Railway Supply Co.....Toronto.

Lathes
The John Bertram Sons Co.....Dundas, Ont.
H. W. Petrie.....Toronto.
Williams & Wilson.....Montreal.

Launches
Polson Iron Works.....Toronto.

Lights, Contractors' and Wrecking
F. H. Hopkins & Co.....Montreal.
W. H. C. Mussen & Co.....Montreal.

Lithographing
Rolph & Clark (Ltd.).....Toronto.

Locomotive Driver Brake Shoe
American Brake Shoe & F'dry Co...Mahwah, N.J.
Canadian Iron and Foundry Co.....Montreal.

Locomotive Lagging and Covering
Canadian Fairbanks Co.....Montreal.

Locomotives (Compressed Air)
Baldwin Locomotive Works.....Philadelphia, Pa.
Canadian Locomotive Co.....Kingston, Ont.
Locomotive and Machine Co. of Montreal.

Locomotives (Electric)
Baldwin Locomotive Works...Philadelphia, Pa.
Canada Foundry Co.....Toronto.
Locomotive and Machine Co. of Montreal.

Locomotives (Logging)
Canadian Locomotive Co.....Kingston, Ont
Lima Locomotive and Machine Co...Lima, Ohio.

Locomotives (Rack)
Baldwin Locomotive Works...Philadelphia, Pa.
Canadian Locomotive Co.....Kingston, Ont.
Locomotive and Machine Co. of Montreal.

Locomotives (Steam)
Baldwin Locomotive Works....Philadelphia, Pa.
Canada Foundry Co.....Toronto.
Canadian Locomotive Co.....Kingston, Ont.
F. H. Hopkins & Co.....Montreal.
Charles F. Johnson.....Buffalo, N.Y.
The W. H. Kelson Co.....Montreal.
Lima Locomotive and Machine Co...Lima, Ohio.
Locomotive and Machine Co. of Montreal.

(Continued on page 59.)

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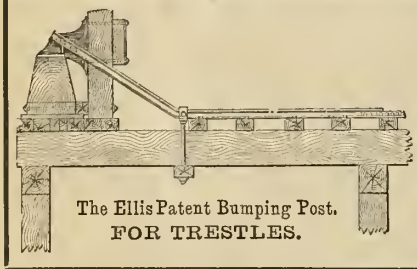

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PURCHASING AGENTS' GUIDE.

(Continued from page 57.)

Locomotive Stack Netting
The G. B. Meadows Wire, etc., Co.....Toronto.

Machine Tools
W. Abbott.....Montreal.
Canadian Fairbanks Co.....Montreal.
H. W. Petrie.....Toronto.
Williams & Wilson.....Montreal.

Machine Screws, Set Cap and Planer
John Morrow Machine Screw Co.....Ingersoll.

Machinery, Marine
Sheriffs Mfg. Co.....Milwaukee, Wis.

Machinery Repairs, Marine
Sheriffs Mfg. Co.....Milwaukee, Wis.

Manganese Steel Castings
Montreal Steel Works.....Montreal.

Manhole Frames and Covers
American Brake Shoe & F'dry Co..Mahwah, N.J.
Canadian Iron and Foundry Co.....Montreal.

Maps
Rolph & Clark (Ltd.).....Toronto.

Marine Insurance
Dale & Co.....Montreal.

Mats and Matting
The Canadian Rubber Co. of Montreal.

Metal Studding
A. B. Ormsby (Ltd.).....Toronto.

Metal Windows
A. B. Ormsby (Ltd.).....Toronto.

Milepost Numbers
Acton Burrows Co.....Toronto.

Milling Cutters
W. Abbott.....Montreal.
Williams & Wilson.....Montreal.

Milling Machines
The John Bertram Sons Co.....Dundas, Ont.
H. W. Petrie.....Toronto.

Mills, Boring and Turning
The John Bertram Sons Co.....Dundas, Ont.
H. W. Petrie.....Toronto.

Mill Tools and Supplies
J. A. Dawson & Co.....Montreal.

Motors
Charles F. Johnson.....Buffalo, N.Y.

Nickel
The Orford Copper Co.....New York.

Nickel for Nickel Steel
The Orford Copper Co.....New York.

Numbers
Acton Burrows Co.....Toronto.

Nut Locks
Jones Positive Nut Lock Co.....Chicago, Ill.
Positive Lock Washer Co.....Newark, N.J.

Nuts, Cold Pressed
John Morrow Machine Screw Co.....Ingersoll.

Nuts, Square and Hexagon
Canada Foundry Co.....Toronto.
Montreal Rolling Mills Co.....Montreal.
Toronto Bolt and Forging Co.....Toronto.

Oakum
The Hudson's Bay Company.....

Office Desks
Canadian Office & School Furniture Co., Preston, Ont.

Office Fittings
Canadian Office & School Furniture Co..Preston, Ont.

Office Railings
The G. B. Meadows Wire, etc., Co.....Toronto.

Office Signs
Acton Burrows Co.....Toronto.

Oils
Galena Signal Oil Co., Franklin, Pa., and Toronto.

Packing
The N. L. Piper Railway Supply Co.....Toronto.
Williams & Wilson.....Montreal.

Packing, High Pressure Sheet
The Canadian Rubber Co. of Montreal.

Packing, Piston
The Canadian Rubber Co. of Montreal.

Paints, Acid Proof and Anti-rust
American Asphaltum & Rubber Co...Chicago, Ill.

Paints, Asphaltum
American Asphaltum & Rubber Co...Chicago, Ill.

Paints, Bridge
American Asphaltum & Rubber Co...Chicago, Ill.

Paints, Locomotive Front end
American Asphaltum & Rubber Co...Chicago, Ill.

Paints, Mineral Rubber
American Asphaltum & Rubber Co...Chicago, Ill.

Paints, Structural Iron
American Asphaltum & Rubber Co...Chicago, Ill.

Pinch Bars
The N. L. Piper Railway Supply Co.....Toronto.

Pipe and Pipe Coverings
W. C. Baker.....New York.

Pipe Covering
Canadian Fairbanks Co.....Montreal.
Mica Boiler Covering Co.....Montreal.

Piston Rods
B. M. Jones & Co.....Boston and New York.

Planers
The John Bertram Sons Co.....Dundas, Ont.
H. W. Petrie.....Toronto.

Ploughs, Contractors'
W. H. C. Mussen & Co.....Montreal.
Toronto Pressed Steel Co.....Toronto.

Pneumatic Tools
N. J. Holden & Co.....Montreal.

Porter
E. L. Drewry.....Winnipeg.

Portable Boilers
Babcock & Wilcox (Ltd.).....Montreal.
Canada Foundry Co.....Toronto.
Robb Engineering Co.....Amherst, N.S.

Printing
The Hunter, Rose Co.....Toronto.
The Mail Job Printing Company.....Toronto.

Propeller Wheels
W Kennedy & Sons (Ltd.).....Owen Sound, Ont.
Sheriffs Manufacturing Co.....Milwaukee Wis.

Pumps
Canadian Fairbanks Co.....Montreal.
Canada Foundry Co.....Toronto.
Goold, Shapley & Muir Co.....Brantford, Ont.
James Smart Mfg. Co.....Brockville, Ont.

Pumps (Centrifugal)
M. Beatty & Sons.....Welland, Ont

Punching and Shearing Machines
The John Bertram Sons Co.....Dundas, Ont.

Rail Benders, Roller
F. H. Hopkins & Co.....Montreal.
Montreal Steel Works.....Montreal.

Rails (new)
Drummond, McCall & Co.....Montreal.
F. H. Hopkins & Co.....Montreal.
J. J. Gartshore.....Toronto.

Rails (for relaying)
F. H. Hopkins & Co.....Montreal.
J. J. Gartshore.....Toronto.
Charles F. Johnson.....Buffalo, N.Y.
T. A. Morrison & Co.....Montreal.
W. H. C. Mussen & Co.....Montreal.
Jas. W. Pyke & Co.....Montreal.

Railway Interlocking
General Railway Signal Co.....Buffalo, N.Y.

Rail Joints
N. J. Holden & Co.....Montreal.

Railway Pile Drivers
F. H. Hopkins & Co.....Montreal.
W. H. C. Mussen & Co.....Montreal.

Railway Signalling
General Railway Signal Co.....Buffalo, N.Y.

Railway Supplies
J. A. Dawson & Co.....Montreal.
Canadian Fairbanks Co.....Montreal.
F. H. Hopkins & Co.....Montreal
The W. H. Kelson Co.....Montreal.
The Hiram L. Piper Co.....Montreal.
The N. L. Piper Railway Supply Co.....Toronto.

Reamers
W. Abbott.....Montreal.

Refrigerators
Geo. R. Prowse.....Montreal.

Rivets, Boiler, Bridge and Structural
Canada Foundry Co.....Toronto.
Montreal Rolling Mills Co.....Montreal.
Toronto Bolt and Forging Co.....Toronto.

Rolled Wheels
Standard Steel Works.....Philadelphia, Pa.

Rolls, Plate Bending
The John Bertram Sons Co.....Dundas, Ont.

Roofers
A. B. Ormsby (Ltd.).....Toronto.

Roof Trusses
Canada Foundry Co.....Toronto.
Canadian Bridge Co.....Walkerville, Ont.
Dominion Bridge Co.....Montreal.

Roofing Pitch
American Asphaltum & Rubber Co...Chicago, Ill.

Roofing, Ready
American Asphaltum & Rubber Co...Chicago, Ill.

Roofs, Car
American Asphaltum & Rubber Co...Chicago, Ill.

Rope
The Hudson's Bay Co.....

Rotary Snow Ploughs
Crossen Car Mfg. Co.....Cobourg Ont.

Rubber Tiling, Interlocking
The Canadian Rubber Co. of Montreal.

Saw Steel
Montreal Steel Works.....Montreal.

Scrapers (Wheel and Drag)
F. H. Hopkins & Co.....Montreal.
W. H. C. Mussen & Co.....Montreal.
Toronto Pressed Steel Co.....Toronto

Screws, Coach and Lag
Montreal Rolling Mills Co.....Montreal.
Toronto Bolt and Forging Co.....Toronto.

Semaphore Arms
Acton Burrows Co.....Toronto.

Semaphores
The N. L. Piper Railway Supply Co.....Toronto.

Sewer Pipe (Cast Iron)
Gartshore-Thompson Pipe & F'dry Co..Hamilton.

Shaking Grates
Babcock & Wilcox (Ltd.).....Montreal.

Shaping Machines
The John Bertram Sons Co.....Dundas, Ont.

Ship Lamps
The Hiram L. Piper Co.....Montreal.
The N. L. Piper Railway Supply Co.....Toronto.

Ships
Polson Iron Works.....Toronto.

Shovels
The Hudson's Bay Co.....

Side Bearings
Simplex Railway Appliance Co.....Montreal.

Signal House Numbers
Acton Burrows Co.....Toronto.

Signals
General Railway Signal Co.....Buffalo, N.Y.
The Hiram L. Piper Co.....Montreal.
N. L. Piper Railway Supply Co.....Toronto.

Signs
Acton Burrows Co.....Toronto.

Skylights
A. B. Ormsby (Ltd.).....Toronto.

Slack Adjusters
Chicago Railway Equipment Co.....Chicago, Ill.

Sledges
James Smart Mfg. Co.....Brockville, Ont.

Slotting Machines
The John Bertram Sons Co.....Dundas, Ont.

Smoke Jacks
Paul Dickinson.....Chicago, Ill.

Snow Ploughs
Crossen Mfg. Co.....Cobourg, Ont.
Charles F. Johnson.....Buffalo, N.Y.
Rhodes, Curry & Co.....Amherst, N.S.

Specialties in Brass and Iron Wire
The G. B. Meadows, Wire, etc., Co.....Toronto.

Speedicut High Speed Steel
Montreal Steel Works.....Montreal.

Spikes, Railway, Ship or Pressed
Montreal Rolling Mills Co.....Montreal.
Toronto Bolt and Forging Co.....Toronto.

Springs
Montreal Steel Works.....Montreal.
Standard Steel Works.....Philadelphia, Pa.

Station and Tower Heaters
W. C. Baker.....New York.

Stationery
Rolph & Clark (Ltd.).....Toronto.

Station Name Signs
Acton Burrows Co.....Toronto.

Station Seats
James Smart Mfg. Co.....Brockville, Ont.

Staybolt Iron
B. M. Jones & Co.....Boston and New York.

Steam Attachments for Car Heating
W. C. Baker.....New York.

Steam Couplers
Safety Car Heating and Lighting Co....New York.

Steam Hammers
The John Bertram Sons Co.....Dundas, Ont.

Steam Shovels
M Beatty & Sons.....Welland, Ont.
F. H. Hopkins & Co.....Montreal.
Charles F. Johnson.....Buffalo, N.Y.
W. H. C. Mussen & Co.....Montreal.
Vulcan Iron Works.....Toledo, Ohio.

Steamship Supplies
The W. H. Kelson Co.....Montreal.

Steamships
Polson Iron Works.....Toronto.

Steamship Signs
Acton Burrows Co.....Toronto.

Steam Steering Engines for Tugs
Sheriffs Mfg. Co.....Milwaukee, Wis.

Steel
W. Abbott.....Montreal.
F. H. Hopkins & Co.....Montreal.
Wm. Jessop & Sons.....Sheffield, Eng.
B. M. Jones & Co.....Boston and New York.
Williams & Wilson.....Montreal.

Steel Buildings
Canada Foundry Co.....Toronto.
Canadian Bridge Co.....Walkerville, Ont.
Dominion Bridge Co.....Montreal.

Steel for Springs
James Hutton & Co.....Montreal.

Steel, Nickel for Nickel
The Orford Copper Co.....New York.

Steel Plate
Jas. W. Pyke & Co.....Montreal.

Steel Rolling Doors
W. H. C. Mussen & Co.....Montreal.
A. B. Ormsby (Ltd.).....Toronto.

Steel Tyres
James Hutton & Co.....Montreal.
Jas. W. Pyke & Co.....Montreal.

Stokers, Mechanical
Babcock & Wilcox (Ltd.).....Montreal.

Stoves
James Smart Mfg. Co.....Brockville, Ont.

Structural Metal Work
Canada Foundry Co.....Toronto.
Canadian Bridge Co.....Walkerville, Ont.
Dominion Bridge Co.....Montreal.
Locomotive and Machine Co. of Montreal.
Jas. W. Pyke & Co.....Montreal.

Superheaters
Babcock & Wilcox (Ltd.).....Montreal.

Switches
Montreal Steel Works.....Montreal.

Switch Lamps
The N. L. Piper Railway Supply Co.....Toronto.

Switch Ropes
The B. Greening Co.....Hamilton, Ont.

Switch Targets
Acton Burrows Co.....Toronto.

Tanks and Tank Fixtures
Canadian Fairbanks Co.....Montreal.
Canada Foundry Co.....Toronto.
Goold, Shapley & Muir Co.....Brantford, Ont.
Ontario Wind Engine and Pump Co.....Toronto.

Telegraph and Telephone Office Signs
Acton Burrows Co.....Toronto.

Tests
R. W. Hunt & Co.....Montreal.
H. Jarvis & Co.....Chicago, Ill.

Ticket Wickets
The G. B. Meadows Wire, etc., Co.....Toronto.

Tie Plates
Montreal Rolling Mills Co.....Montreal.

Time Table Racks
The G. B. Meadows Wire, etc., Co.....Toronto.

Tires
Standard Steel Works.....Philadelphia, Pa.

Tools
James Smart Mfg. Co.....Brockville, Ont.

Tool Steel
W Jessop & Sons.....Sheffield, Eng.
B. M. Jones & Co.....Boston and New York.
Montreal Steel Works.....Montreal

Towers
Goold, Shapley & Muir Co.....Brantford, Ont.

Track Jacks
Canadian Fairbanks Co.....Montreal.
F. H. Hopkins & Co.....Montreal.
Montreal Steel Works.....Montreal.
W. H. C. Mussen & Co.....Montreal.
A. O. Norton.....Coaticook, Que.

Tracklaying Lorries
Crossen Car Mfg. Co.....Cobourg, Ont.
F. H. Hopkins & Co.....Montreal.

Tracklaying Machinery
D. F. Holman Ry. Tracklayer Co.....Chicago, Ill.

Track Tools
N. J. Holden & Co.....Montreal.
F. H. Hopkins & Co.....Montreal.
Montreal Steel Works.....Montreal.
W. H. C. Mussen & Co.....Montreal.

Tramway Equipment
J. J. Gartshore.....Toronto.

Trucks
James Smart Mfg. Co.....Brockville, Ont.

Trucks (Electric Car)
Baldwin Locomotive Works.....Philadelphia, Pa.
Canada Foundry Co.....Toronto.
Charles F. Johnson.....Buffalo, N.Y.
Montreal Steel Works.....Montreal.

Trucks (Railroad and Warehouse)
Canadian Fairbanks Co.....Montreal.
Toronto Pressed Steel Co.....Toronto.

Turbine Waterwheels
W. Kennedy & Sons (Ltd.).....Owen Sound, Ont.

Turnbuckles
Montreal Steel Works.....Montreal.

Turntables
Canada Foundry Co.....Toronto.
Canadian Bridge Co.....Walkerville, Ont.
Dominion Bridge Co.....Montreal.
Charles F. Johnson.....Buffalo, N.Y.

Underwriters
Dale & Co.....Montreal.

Valves, Brass Gate
Kerr Engine Co.....Walkerville, Ont.

Valves, Brass Globe
Kerr Engine Co.....Walkerville Ont.

Valves, Iron and Brass
Canada Foundry Co.....Toronto.
Canadian Fairbanks Co.....Montreal.

Valves, Iron Gate
Kerr Engine Co.....Walkerville, Ont.

Valves, Rubber
The Canadian Rubber Co. of Montreal.

Varnishes
McCaskill, Dougall & Co.....Montreal.

Ventilators
Paul Dickinson.....Chicago, Ill.

Vessels
Polson Iron Works.....Toronto.

Washers
Montreal Rolling Mills Co.....Montreal.

Waste
N. L. Piper Railway Supply Co.....Toronto.

Water Filters
Geo. R. Prowse.....Montreal.

Water Pipe (Cast Iron)
Gartshore-Thompson Pipe & F'dry Co. Hamilton.

Water Softeners
Babcock & Wilcox (Ltd.).....Montreal

Wheelbarrows
F. H. Hopkins & Co.....Montreal.
Toronto Pressed Steel Co.....Toronto.

Wheels, Car
Canada Car Co.....Montreal.
Canadian Iron and Foundry Co.....Montreal.
John McDougall & Co.....Montreal.
Jas. W. Pyke & Co.....Montreal.
Rhodes, Curry & Co.....Amherst, N.S.
Standard Steel Works.....Philadelphia, Pa.

Wheels, Locomotive
Canadian Iron and Foundry Co.....Montreal.
John McDougall & Co.....Montreal.

Wheels, rolled, solid forged
Standard Steel Works.....Philadelphia, Pa.

Wheels, steel tired
Standard Steel Works.....Philadelphia, Pa.

Windmills
Canadian Fairbanks Co.....Montreal.
Ontario Wind Engine and Pump Co.....Toronto.

Wire and Wire Rope
Dominion Wire Rope Co.....Montreal.
The B. Greening Co.....Hamilton, Ont.
W. H. C. Mussen & Co.....Montreal.
The Wire and Cable Co.....Montreal.

Wire Cloth
The B. Greening Co.....Hamilton, Ont.

Wire, Copper
E. F. Phillips Electrical Works, Ltd.....Montreal
The Wire and Cable Co.....Montreal.

Wire, Electric
Canadian General Electric Co.....Toronto.
E. F. Phillips Electrical Works, Ltd.....Montreal.
The Wire and Cable Co.....Montreal.

Wire, Insulated Copper
Canadian General Electric Co.....Toronto.
E. F. Phillips Electrical Works, Ltd.....Montreal.
The Wire and Cable Co.....Montreal.

Wire Lockers (Employes)
The G. B. Meadows Wire, etc., Co.....Toronto.

Wire, Telegraph and Telephone
E. F. Phillips Electrical Works, Ltd.....Montreal.
The Wire and Cable Co.....Montreal.

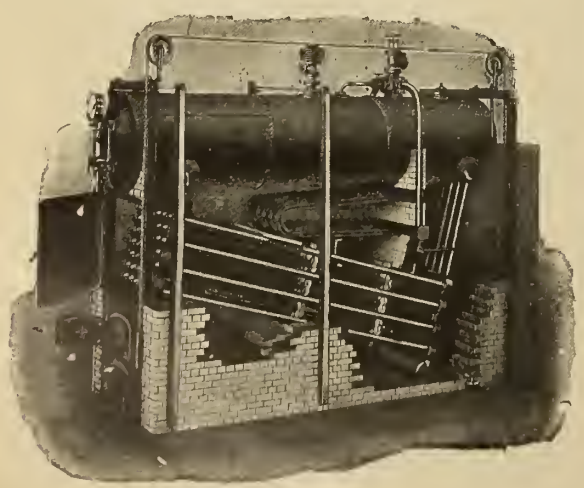
Wire, Transmission and Trolley
The Wire and Cable Co.....Montreal

Woodworking Machinery
H. W. Petrie.....Toronto.

Wrecking Cranes
W. H. C. Mussen & Co.....Toronto.

Wrought Steel Piping
Canada Foundry Co.....Toronto

Yachts
Polson Iron Works.....Toronto



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See Purchasing Agents' Guide on third page of cover

See Alphabetical Index to Advertisements on page 91.

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Old Series, No. 178. New Series, No. 96. TORONTO, CANADA, FEBRUARY, 1906, 10 Cents a Copy. $1 a Year.

RAILWAY DEVELOPMENT.

Projected Lines, Surveys, Construction, Betterments, Etc.

Alberni and Cowichan Ry.—See British Columbia.

Asheroft, Barkerville and Fort George Ry.—Application will be made next session of the Dominion Parliament for an act incorporating a company with this title to construct a railway from Kamloops or Ashcroft, or some point between them, thence by the most feasible route to Barkerville and Fort George, B.C., with all the necessary incidental powers. Eberts and Taylor, Victoria, B.C., are solicitors for the applicants.

Atlantic Grindstone, Coal and Ry. Co.—This company has recently acquired some colleries in Cumberland county, N.S., and has its headquarters at Lower Cove, N.S. In connection with the development of the property some railway construction will be done, but we are advised that any railway projected will be only a short one—about a mile or so—or a branch from the mines to the quarries. The President is H. J. Heustis, of Providence, R.I., who with A. C. Casey, recently visited the properties from the Providence office.

Atlantic, Quebec and Western Ry.—Application will be made next session of the Quebec Legislature for an extension of time, for a further period of two years, for the completion of the authorized lines, and for other purposes. The Company will also apply next session of the Dominion Parliament for an act extending the time within which it may complete its projected railways. (Dec., 1905, pg. 561).

The Boundary, Kamloops and Cariboo Central Ry. will apply next session of the Dominion Parliament for an act granting an extension of time for the construction of its railway, and for other purposes.

British Columbia.—Application will be made at the current session of the B.C. Legislature for an act incorporating a company with power to purchase, construct and operate the undertakings of the Vancouver and Coast Kootenay Ry., the Alberni and Cowichan Ry., the Kamloops and Atlin Ry., and the Midway and Vernon Ry.; to acquire and operate any other railways; to subscribe for the capital stock of any railways, and to promote any railway company or companies. Robertson & Robertson, Victoria, B.C., are solicitors for the promoters.

The Vancouver and Coast Kootenay Ry. came into existence under the terms of the Coast Kootenay Railway Aid Act, passed by the B.C. Legislature, 1902. This act authorized the Lieut.-Governor-in-Council to enter into an agreement with the V. and C.K. Ry., or any other company, to construct a railway from Vancouver to Midway, B.C., about 330 miles, in consideration of the payment of $4,500 a mile in cash or debentures at 3% redeemable in 50 years. Under this act a contract was made with L., H. and N. McLean to construct the line and a charter was given them under the title of the V. and

WILLIAM T. JENNINGS, M. Inst. C.E.; M. Can. Soc. C.E.

C. K. Ry. In 1903 the Dominion Parliament passed an act recognizing the company, and the line authorized to be constructed as being for the general advantage of Canada, and definitely setting forth the line to be constructed, as from Vancouver south-easterly to New Westminster, across the Fraser River, and easterly to Midway; with a branch from south of the Fraser River to the mouth of the same; a branch from the main line near Hope to Nicola Lake; a branch from near Vancouver across Burrard Inlet to North Vancouver, thence to the mouth of Capitano River. In 1905 the Dominion Parliament granted an extension of time for the construction of these lines, and at the current session of the B.C. Legislature it is proposed to ask for an act extending the time for the commencement and completion of the line, and granting power to construct an additional branch to Kamloops. (Feb., 1905, pg. 51).

The Alberni and Cowichan Ry. was incorporated under an act passed by the B.C. Legislature in 1904, with J. T. Braden, J. Thompson, E. M. Giles, L. Thompson, and E. C. B. Bayshawe, of Victoria, as provisional directors, to construct a railway from Mill Bay or Cowichan Bay on the east coast of Vancouver Island, along Cowichan River to the lake of the same name, and to Barclay Sound, near Sarita River, with a branch along Coleman Creek and the south shore of Alberni Creek to Alberni, thence by Alert Bay to Fort Rupert; and to Quatsino Sound.

The Kamloops and Atlin Ry. was incorporated bythe B. C. Legislature in 1901—the provisional directors being: H. P. Bell, D. H. Macdowell, T. Lubbe—with power to construct a railway to consist of three sections, viz., from Ashcroft to the summit between the forks of Bonaparte River and Bridge Creek; sec. 2, from the terminal point of sec. 1 for 140 miles; and sec. 3, from the terminal point of sec. 2 to the confluence of the Quesnel and Fraser rivers. Power was also given to construct branch lines particularly to Antler or Williams Creek in the Bakerville District.

The Midway and Vernon Ry. was incorporated by the B.C. Legislature in 1901—the provisional directors being J. H. Senkler, E. Bloomfield and A. P. Judge, of Vancouver—to construct a railway from Midway to Rock Creek, thence north-easterly to the west fork of Kettle River, thence following the west fork and the Okanagan Mission Valley to Vernon. In 1902, an act was passed transferring the company's office from Greenwood to Vancouver, and authorizing a grant of $4,500 a mile in aid of construction of the line, which was not to exceed 152 miles in length. In 1903 an act was passed by the Dominion Parliament recognizing the B.C. charter and declaring the line to be for the general advantage of Canada. The charter has passed out of the hands of the original incorporators and construction has been started at Midway. (Dec., 1905, pg. 567.)

A report has been current in B.C. for some time that a U.S. railway company was negotiating for a number of charters in the Province with a view of combining them, and on gaining an outlet at the coast put on a steamship service on the Pacific in opposition to the C.P.R., and the Great Northern Ry. The company is said to be

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the Chicago, Milwaukee and St. Paul Rd.; which has recently let a contract for a line to Seattle, Wash.

Canadian Eastern Ry.—The Quebec Legislature will be asked at the current session to incorporate a company with this title to construct a railway from Montreal easterly to the limit of the Province on the Labrador coast. Geoffrion, Geoffrion & Cusson, Montreal, are solicitors for the promoters.

Cape Breton Coal, Iron and Ry. Co.—Plans have been deposited with the Department of Public Works, Ottawa, and with the Registrar of Deeds for Cape Breton county, N.S., for the construction by the company of a bridge over the Mira River, and the approval of the Government is being asked.

The Central Ry. is the title of a company originally projected as the Ottawa River Ry. with power to construct a line from Montreal to Ottawa. It was proposed to operate the line, for which surveys were made, by electricity. Charters were subsequently obtained from the Dominion Parliament as well as from the Quebec and Ontario Legislatures, covering a line from Montreal to Ottawa, on the north side of the river; a crossing of the Ottawa River at Hawkesbury, and a line thence to Midland and St. Thomas, Ont. Senator Domville of Rothesay, N.B., is President of the company, and it is stated that United States capital is behind the project. The company has deposited $25,000 with the Receiver-General, in accordance with the provisions of sec. 13 of the Dominion charter, 1903. This deposit will be repaid to the company as progress is made on the line between Montreal and Grenville, Que., but is liable to be forfeited if construction is not proceeded with. J. M. Shanley is Chief Engineer, and it is stated that construction will be commenced early in the year.

Central Ontario Ry.—The Dominion Parliament will be asked next session to pass an act extending the time within which the extensions authorized may be commenced and completed, and for other purposes.

Edmonton and Fort Vermillion Ry.—The Dominion Parliament will be asked next session to pass an act incorporating a company with this title to construct a railway from Edmonton, Alta., northerly to Lesser Slave Lake, thence to the valleys of the Wabiskaw and Loon rivers, and along these valleys to the Peace River, and along that river valley to Fort Vermillion. Pringle & Guthrie, Ottawa, are solicitors acting for the applicants.

Esquimalt and Nanaimo Ry.—Application will be made next session of the Dominion Parliament for an act granting an extension of time for the construction of the main line between the present terminus and Comox, and the branch lines authorized, to give general power to construct branches, and for other purposes.

Hudson Bay and North-West Ry.—The Dominion Parliament will be asked next session for an act authorizing the H.B. and N.-W. Ry. Co. to amalgamate with the Manitoba and Keewatin Ry. The M. and K. Ry. will also apply for an act authorizing its amalgamation with the H.B. and N.-W. Ry. Both companies also ask for an extension of the time within which the authorized lines may be commenced and completed. No construction work has yet been undertaken by either company. Chrysler, Bethune and Larmouth, Ottawa, are solicitors for the applicants.

International Ry. Co. of New Brunswick.—This is a company incorporated under the New Brunswick Companies' Act to construct certain railways in New Brunswick. The line which is under construction was formerly described as the Restigouche and Western Ry. The starting point is at Campbellton, on the Intercolonial Ry., at the head of navigation of the Baie des Chaleurs, thence proceeding across the province to the St. John River at St. Leonard's, opposite Van Buren, Me. The line has been completed for 24 miles from Campbellton to four miles southwest of the Upsalquitch River, track being laid on the last four miles during 1905. The track is being laid with 67 lb. steel, and the bridges are of concrete with steel superstructures. Further construction will be gone on with during this year on a 30 mile section, which will carry the line to the table lands. At St. Leonard's connection will be made with the C.P.R., and by means of a bridge across the St. John River, with the Bangor and Aroostook Rd. at Van Buren, Me. T. A. Malcolm, Campbellton, is the chief owner of the line; J. M. Shanley, Montreal, is Chief Engineer; J. W. Brackman, Campbellton, is Manager of Construction, and J. A. Ritchie, resident engineer. (Mar., 1905, pg. 93.)

Kamloops to Fort George, B.C.—The Dominion Parliament will be asked next session to pass an act incorporating a company to construct a railway from Kamloops or Ashcroft to Barkerville and Fort George, B.C. Eberts & Taylor, Victoria, are solicitors for the applicants.

Kamloops and Atlin Ry.—See British Columbia.

Kamloops and Yellowhead Pass Ry.—Application will be made next session of the Dominion Parliament for an act incorporating a company with this title for the purpose of constructing a railway from Kamloops, northerly, following the valleys of the North Thompson and Canoe Rivers, and McLennan's Creek to Tête Jaune Cache, B. C. Power is also asked to run steamboats and ferries in connection with the railway, and to make connection with the C.P.R., or any railway that may be constructed from the south at Kamloops, and also with any railway coming westward through Yellowhead Pass. The company will also apply for power to generate electricity and to distribute power within the Province of British Columbia. Tupper & Griffin, Vancouver, are solicitors for the promoters.

Kingston and Pembroke Ry.—Application will be made next session of the Dominion Parliament for an act granting an extension of time within which it may construct the branch line of railway authorized from Sharbot Lake to Carleton Place, Ont.

Klondike Mines Ry.—This 3 ft. gauge railway is under construction from Dawson to Stewart River, Yukon Territory, 84 miles. About eight miles of grading has been completed from Dawson, and 4½ miles of track were laid in 1905. A bridge about 300 ft. long over the Klondike River and another one of two 75 ft. spans over a slough at Klondike City have been built. About two mines of the line have been ballasted, and also the spur line of about three-quarters of a mile to Klondike city. As originally planned the line was to start from Klondike city, and a short piece of track was laid. Subsequently the starting point was fixed at Dawson, and work done last year was from that point. During the current year it is expected complete the line to Grand Forks, about 12 miles from Dawson, and from Grand Forks to Sulphur Springs, 17 miles, and it is expected that the line will be completed to Stewart River in 1907. The contractors are O'Brien & Mackenzie, of Dawson. H. B. Smith is Chief Engineer for the Grand Forks and Stewart River Corporation (Ltd.), which is financing the construction, and F. W. O'Brien is in charge of construction. The Grand Forks and Stewart River Corporation is an English company with offices at Billiter Building, Billiter St., London, Eng. The directors in London are John Latta, of Lawther & Latta, shipowners, and John Carlisle of the Red Star Line; while the Canadian directors are H. B. McGivern, J. A. Seybold and L. N. Bates, of Ottawa. (Sept., 1905, pg. 407, and May, 1905, pg. 185).

Mackenzie River, Fort Simpson, Liard Post and Yukon Ry.—Application will be made next session of the Dominion Parliament for an act incorporating a company with this title for the purpose of constructing a railway from Fort Simpson, at the junction of the Liard and Mackenzie rivers in the Northwest Territories, south-westerly to Liard Post, thence northerly along the Liard River to where the 61st parallel crosses the river; thence northwesterly along and between the Campbell Mountains and the Findlayson River, and Findlayson Lake to Pelly Banks Post on Pelly River; along the Pelly River to Earn River, and thence northwesterly to Dawson, Yukon. Power will also be asked to develop and distribute electric power, operate steamers and ferries, and effect a junction with any railway to be constructed from the south to Liard Post. C. D. Mason, Victoria, B.C., is solicitor for the applicants.

Manitoba and Keewatin Ry.—See Hudson Bay and North-West Ry.

Maritime Coal and Ry. Co.—We are informed that this company at present is operating a line about two miles long from Maccan station on the I.C.R., to Chignecto mines. There is some talk of the line being extended, but nothing definite has been announced in regard to it. (Oct., 1905, pg. 459.)

Matane and Gaspe Ry.—Application will be made next session of the Quebec Legislature for an act granting an extension of time for the construction of the already authorized line, and power to construct a line from the junction with the Intercolonial Ry. to a junction with the line of the G.T. Pacific Ry. in the county of Temiscouata, Que. The company will also ask for power to operate the line by steam, electricity, or any other motive power, to run lines of steamers, to operate telegraph and telephone lines, and for other purposes.

Midland Ry. of Manitoba.—A party is reported to be in the field making a survey for a line from Carman, Man., to Gretna and Walhalla, N.D., where it is proposed to make connection with the Great Northern Ry., U.S. The company proposes to apply next session of the Manitoba Legislature for an act amending its act of incorporation in several particulars. Application will be made at the current session of the Manitoba Legislature for an act amending the act of incorporation, and authorizing the construction of an additional line from Carman, on the proposed line between Emerson and Portage la Prairie, southerly to the International boundary between range 4 and range 1 west of the 1st principal meridian. Power is also asked to construct telephone and telegraph lines, and for other purposes. (Dec., 1905, pg. 567).

Midway and Vernon Ry.—See British Columbia.

Nicola, Kamloops and Similkameen Coal and Ry. Co.—The shareholders at the special general meeting held at Montreal, recently, passed resolutions authorizing the lease of the railway and charter rights to the C.P.R., and the issue of bonds to pay for construction. (Dec., 1905, pg. 567.)

North-Eastern Ry.—The Quebec Legislature will be asked next session to pass an act incorporating a company with this title to construct a railway from Ville Marie on the east shore of Lake Temiskaming, easterly, passing the southern bays of Lake des Quinze, Victoria and Kakebonga, in Pontiac County, to Quebec, with power to construct branch lines from Lake Temiskaming northerly to a junction with the Eastern Division G.T. Pacific Ry., north-easterly to Lake Abitibi,

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from near Kakebonga Lake to Maniwaki, and from near the crossing of the Gatineau River to Nominingue, Que., with incidental powers.

North Lanark Ry.—In connection with the surveys recently made for the construction of a line from Ottawa in the direction of Blythfield tp., Ont., a report has been current that the charter of the North Lanark Ry. Co., which was incorporated by the Ontario Legislature, had been acquired by the New York Central Ry. We are advised that there is no foundation for this report, and that the N.Y.C. Ry. is not in any way interested in the surveys. The North Lanark Ry. Co. obtained an act from the Ontario Legislature in 1903, extending the time for the completion of the lines authorized, varying the location, and giving power to amalgamate with the Canada Atlantic Ry. or the Ottawa and New York Ry.

Port Angeles and Olympia Ry.—A company with this title has been organized at Seattle, Wash., the trustees being L. Turner, J. Firth, W. D. Hopkins, A. A. Arthur, New York; M. J. Corrigan, Port Angeles, Wash. The capital stock is $4,000,000. It is proposed to operate a ferry from Port Angeles, Wash., to Esquimalt, B.C., and to construct a railway from Esquimalt to Victoria. A. A. Arthur is also interested in the Midway and Vernon Ry., and it is stated that the same interests are also interested in the Spokane International Ry.

Port Elgin Spur Line Ry.—The Ontario Legislature will be asked next session for an act incorporating a company with this title to construct a railway from the G.T.R. station at Port Elgin, Ont., westerly to the harbor dock, and to a mill yard near. Power is also asked to construct telegraph and telephone lines in connection with the railway, and to enter into an agreement with the G.T.R for the operation of the railway, etc. J. C. Dalrymple, Port Elgin, Ont., is solicitor for the applicants.

Quebec Central Ry.—Application will be made at next session of the Quebec Legislature for an act authorizing the diversion and rebuilding of the present line from Beauce station to Beauceville, on the line known as the Chaudiere extension; to construct a line from Beauceville to River Fannie, 9 miles, and following the River Fannie to Langeville, and the St. John River watershed to Cabana station on the Temiscouata Ry., with power to make connection with that line. The branch line to be constructed to be known as the Quebec Central Chaudiere extension.

Quebec Midland Ry.—Application will be made next session of the Dominion Parliament for an act incorporating a company with this title to construct a railway not less than 3 ft. 6 in. gauge, from the Interprovincial boundary at the north end of Lake Abitibi, easterly and northerly to the western shore of Lake Mattagami, Que. Tourigny and Bureau, Three Rivers, Que., are solicitors for the promoters.

Rainy River Bridge.—Application will be made next session of the Dominion Parliament for an act incorporating a company with power to construct a railway and general traffic bridge across the Rainy River at Pither's Point, near Fort Frances, Ont., and spurs or branch lines of railway to connect the bridge with adjacent lines of railway, and and all other necessary powers. Included in these other powers is authority to unite with a company in the U.S. for the building of such a bridge, or any part thereof, The notice is signed by Z. A. Lash, Toronto, who is Chief Solicitor for the Canadian Northern Ry., and other Mackenzie, Mann & Co. undertakings.

Regina and Saskatchewan Ry.—Application will be made next session of the Saskatchewan Legislature for an act incorporating a company with this title with power to purchase or lease the Qu'Appelle, Long Lake and Saskatchewan Rd. and Steamboat Co.'s railway from Regina to Prince Albert, and to operate the same; also with authority to extend the line from Regina south-westerly to the Willow Bunch and Wood Mountain districts; from Regina southerly and south-easterly to the International boundary; from Prince Albert northerly to the northern boundary of the province; also the following branch lines:—from Craven to Big Quill Lake; from Craik to the northern end of Lost Mountains Lake; from Davidson westerly and north-westerly to the South Saskatchewan River, thence to the western boundary of the province; from Saskatoon to the western boundary; and from Rosthern to the western boundary. N. McKenzie, Regina, Sask., is solicitor for the applicants.

Schomberg and Aurora Ry.—Application will be made next session of the Dominion Parliament for an act authorizing the company to construct a branch to Nottawasaga Bay, and another to Bowmanville, Ont. An extension of time for the construction of the already authorized lines is also asked.

St. Casimer to St. Raymond.—Notice has been given that the Quebec Legislature will be asked next session to pass an act incorporating a company to construct a railway from St. Casimer or St. Mare, Portneuf county, Que., north-easterly generally via the Ste. Anne River valley to Gosford tp., passing the villages of Ste. Christine and St. Raymond. White & Buchanan, Montreal, are solicitors for the applicants.

St. Maurice Valley Ry.—Sub-contracts have been let on six miles of this line from Three Rivers to Shawenegan Falls, Que., 22 miles, the the general contractors, Ross & McRae, doing the rest of the work themselves. G. Leprohon has mileage 19 and 20; — Malone, mileage 18 and 19; and Woods & McRae, mileage 14 and 15 The first 12 miles is mostly scraper work, and the rest is heavy clay. The general contractors will also do all the timber and concrete work, the latter replacing masonry altogether. The timber work is confined to the second section and will run to about 750,000 ft. The work was somewhat late in starting, and though the contractors were held back by the weather, considerable progress has been made. (Dec., 1905, pg. 567).

Vancouver and Coast Kootenay Ry.—See British Columbia.

Vancouver and North-Western Ry.—Application will be made next session of the Dominion Parliament for an act incorporating a company with this title to construct a railway from Vancouver eastward to the Pitt River, thence to the Lillooet River, the Slave River, thence northerly to the Harrison River, Fort George on the Fraser River, and the 60th degree of latitude. Power is also asked to develop electricity and to distribute the same. D. G. Macdonald, Vancouver, B.C., is solicitor for the applicants.

Vancouver, Westminster and Yukon Ry.—Application will be made next session of the Dominion Parliament for an act authorizing the construction of the following branch lines:—from between Anderson and Green Lake, passing Lillooet Lake, Lillooet River, and Harrison Lake, south-easterly to the International boundary; from the projected main line between Lillooet and Quesnelle easterly through the basin of Quesnelle Lake to the Tete Jaune Cache; from the projected main line between the Cottonwood and Willow rivers south-easterly to Barkerville; from near Willow River easterly to the Fraser River, Tete Jaune Cache, through the Yellowhead Pass, and thence by the most convenient route to Edmonton, Alta. Power is also asked to increase the capital of the company from $12,000,000 to $25,000,000, and the bonding powers from $35,000 to $40,000 a mile. (Dec., 1905, pg. 569).

Western Ontario Pacific Ry.—Application will be made next session of the Dominion Parliament for an act authorizing the company to construct a branch line from near London, Ont., northerly through the counties of Middlesex, Oxford, Perth, to Lake Huron in either Huron or Bruce county.

White Horse and Alsek Ry.—The Dominion Parliament will be asked next session for an act extending the time within which this company's proposed railway may be commenced and completed.

White Pass and Yukon Ry.—The preliminary surveys recently made in the Windy Arm district were both made from the north and south end, with the object of ascertaining what it would cost to construct a line through should business warrant it. We have been officially advised that at present there is nothing to warrant constructing a line, but what may be done in the future is problematical. (Dec., 1905, pg. 569.)

February Birthdays.

Many happy returns of the day to—

B. H. Bennett, General Agent Chicago and North-Western Ry. Toronto, born at Cobourg, Ont., Feb. 6, 1858.

F. C. Bond, Resident Engineer G.T.R., Montreal, born there Feb. 21, 1877.

E. E. Cain, Trainmaster Pere Marquette Rd., Detroit, Mich., born at Dublin, Ind., Feb. 14, 1867.

F. W. Churchill, C.P.R. Ticket Agent, Collingwood, Ont., born in London, Eng., Feb. 6, 1853.

H. J. Colvin, District Passenger Agent C.P.R. Boston, Mass., born at Macedon, N.Y., Feb. 26, 1856.

H. R. Charlton, Advertising Agent G.T.R. Montreal, born at St. John's, Que., Feb. 9, 1866.

F. W. Cooper, Resident Engineer C.P.R., London, Ont., born there Feb. 16, 1880.

R. Crawford, Northwest Agent Northern Navigation Co. Winnipeg, Man., born at Kingston, Ont., Feb. 21, 1870.

F. P. Dwyer, Eastern Passenger Agent G.T.R., New York, born at Chicago, Ill., Feb. 20, 1853.

E. A. Evans, General Manager and Chief Engineer Quebec Ry., Light and Power Co., Quebec, born at Kensington, London, Eng., Feb. 26, 1855.

E. H. Fitzhugh, Third Vice-President G.T.R. and Vice-President Central Vermont Ry., Montreal, born in Montgomery County, Mo., Feb. 1, 1853.

C. W. Gardner, Auditor Minneapolis, St. Paul and Sault Ste. Marie Ry., Minneapolis, Minn., born at Rushville, N.Y., Feb. 17, 1861.

L. O. Genest, General Storekeeper, C.P.R. Western Lines, Winnipeg, Man., born at St. Henri, Levis County, Que., Feb. 16, 1856.

W. Jackson, C.P.R. ticket agent Clinton, Ont., born there Feb. 4, 1860.

R. S. Logan, Assistant to 2nd Vice-President and General Manager G.T.R., Montreal, born at St. Louis, Mo., Feb. 13, 1864.

D. MacPherson, Assistant Chief Engineer Transcontinental Ry. Commission, Ottawa, born at Bath, Ont., Feb. 2, 1858.

C. S. Maharg, Trainmaster District 1, C.P.R. Central Division, Kenora, Ont., born in Dufferin County, Ont., Feb., 1867.

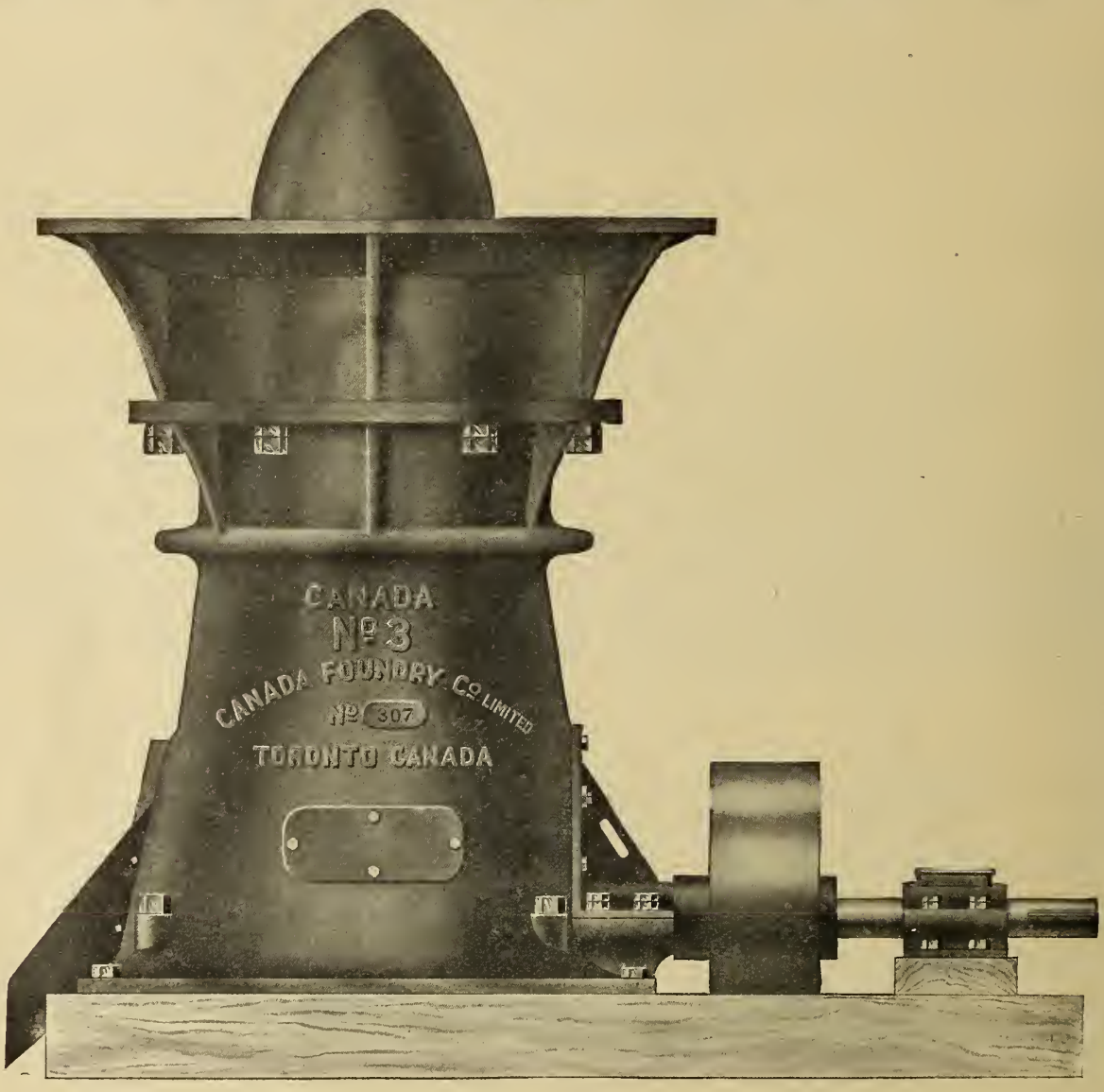
T. McNabb, Master Mechanic Alberta Ry. and Irrigation Co. at Lethbridge, Alta., born in Scotland, Feb. 16, 1849.

C. W. Milestone, ex-Superintendent C.P.R. at Moose Jaw, Assa., born at Medina, Ohio, Feb. 24, 1857.

C. Percy, Auditor G.T.R., Montreal, born in Kent, Eng., Feb. 12, 1845.

R. D. Pinneo, Assistant General Freight and Passenger Agent, White Pass and Yukon Route, Skagway, Alaska, born at Princeton, Ia., Feb. 9, 1873.

ROCK CRUSHERS



This is a Gyratory Rock Crusher of new design containing special features which will recommend themselves to all users. Send for Bulletin No. 31.

CANADA FOUNDRY COMPANY LIMITED

Head Office: TORONTO

District Offices: MONTREAL HALIFAX OTTAWA WINNIPEG VANCOUVER ROSSLAND

A. H. Robinson, Superintendent Elgin and Havelock Ry., at Petitcodiac, N.B., born at Elgin, N.B., Feb. 2, 1862.

A. E. Rosevear, Freight Claim Agent G.T.R. at Montreal, born Feb. 20, 1863.

H. H. Schaefer, District Freight Agent Intercolonial Ry., St. John, N.B., born at Cologne, Germany, Feb. 10, 1848.

J. G. Scott, General Manager Quebec and Lake St. John Ry., Quebec, born there Feb. 13, 1847.

G. Spencer, Superintendent C.P.R. Toronto, born in London, Eng., Feb. 21, 1865.

Hugh Sutherland, Executive Agent Canadian Northern Ry., Winnipeg, Man., born at New London, P.E.I., Feb. 22, 1845.

J. W. Troup, Superintendent C.P.R. Pacific Coast Steamships, Vancouver, born Feb. 5, 1855.

Sir Wm. C. VanHorne, K.C.M.G., Chairman C.P.R. and President Cuba Co., Montreal, born in Will County, Ill., Feb., 1843.

H. W. Walker, General Auditor G.T.R., Montreal, born at Brantford, Ont., Feb. 12, 1839.

Canadian Northern Ry. Earnings, etc.

Gross earnings, working expenses, net profits, increases or decreases over 1904-05, from July 1, 1905:

	Earnings.	Expenses.	Net Earnings.	Increase or Decrease.
July	$395,100	$ 252,600	$ 142,500	$ 51,400+
Aug.	357,900	246,200	111,700	12,200+
Sept.	378,500	268,300	110,200	14,000+
Oct.	557,100	298,900	258,200	113,600+
Nov.	566,800	341,700	225,100	68,700+
	$2,255,400	$1,407,700	$847,700	$259,900+

Approximate earnings for Dec., $437,800, against $384,600 for Dec., 1904.

C.P.R. Earnings, Expenses, etc.

Gross earnings, working expenses, net profits, increases or decreases over 1903-04, from July 1, 1904:—

	Earnings.	Expenses.	Net Profits.	Increase or Decrease.
July	$4,629,174.95	$2,991,397.29	$1,449,652.14	$188,125.52+
Aug.	4 796,733.98	3,005,088.07	1,791,645.91	263,715.48+
Sept.	4,872,575.38	3,086,565.35	1,776,010.05	507,202.49+
Oct.	5,722,767.30	3,448,696.12	2,274,071.18	707,957.27+
Nov.	5,741,543.12	3,380,232.13	2,316,310.99	691,736.25+
	$25,762,794.73	$15,921,978.04	$9,840,815.79	$2,358,737.00+

Approximate earnings for Dec., $5,568,000, against $4,517,000 for Dec., 1904.

DULUTH, SOUTH SHORE AND ATLANTIC RY.—Gross earnings for Nov., $249,241.63; net earnings $210,944.67, against $83,034.71 gross and $61,559.14 net for Nov., 1904. Net earnings for five months ended Nov. 30, $479,944.94 against $397,604.62 for same period 1904. Approximate earnings for Dec., $213,548 against $191,913 for Dec., 1904.

MINERAL RANGE RY.—Approximate earnings for Dec., $59,104, against $52,885 for Dec., 1904.

MINNEAPOLIS, ST. PAUL AND SAULT STE. MARIE RY.—Gross earnings for Nov., $1,149,648.58; net earnings, $942,186.06, against $687,873.25 gross and $558,986.59 net for Nov., 1904. Net earnings for five months ended Nov. 30, $3,007,159.30 against $2,101,313.87. Approximate earnings for Dec., $931,739 against $700,577 for Dec., 1904.

Canadian Pacific Railway Land Sales.

	Acres. 1905.	Acres. 1904.	Amount. 1905.	Amount. 1904.
July	58,477.37	36,425.75	$304,795.23	$177,473.94
Aug.	58,542.44	15,669.90	327,579.63	88,735.88
Sept.	111,479.71	16,470.02	556,642.64	73,642.96
Oct.	79,168.41	23,792.84	412,237.95	104,843.47
Nov.	200,441.36	23,392.88	1,065,512.03	112,261.70
Dec.	52,288.20	32,196.59	282,095.12	142,538.40
	560,327.49	147,947.98	$2,948,862.60	$ 899,496.35

Grand Trunk Ry. Earnings, Expenses, etc.

The following statement of earnings, supplied from the Montreal office, includes the G.T. of Canada, the G.T. Western, and the Detroit, Grand Haven & Milwaukee Rys.

	1905.	1904.	Increase.	Decrease.
July	$3,059,675	$3,013,149	$46,526	....
Aug.	3,301,254	3,108,137	193,117	....
Sept.	3,409,363	3,182,972	226,391	....
Oct.	3,569,182	3,344,181	225,001	....
Nov.	3,446,074	3,221,296	224,778	....
Dec.	3,401,472	3,185,857	215,615	....
	$20,187,020	$19,055,592	$1,131,428	....

The following figures relate to the individual lines, and are made out in sterling:

GRAND TRUNK RY. CO.

Revenue for Nov.:

	1905.	1904.	Increase.	Decrease.
Gross receipts	£543,200	£503,000	£40,200	....
Working expenses	384,900	345,000	39,900	....
Net profit	£158,300	£158,000	£ 300	....

Aggregate from July 1 to Nov. 30:

	1905.	1904.	Increase.	Decrease.
Gross receipts	£2,741,600	£2,611,500	£130,100	....
Working expenses	1,889,700	1,750,800	138,900	....
Net profit	£851,900	£860,700	...	£8,800

GRAND TRUNK WESTERN RY. CO.

Revenue for Nov:

	1905.	1904.	Increase.	Decrease.
Gross receipts	£97,400	£99,300	....	£1,900
Working expenses	75,600	76,600	....	1,000
Net profit	£21,800	£22,700	....	£ 900

Aggregate from July 1 to Nov. 30:

	1905.	1904.	Increase.	Decrease.
Gross receipts	£492,900	£444,100	£48,800	....
Working expenses	410,600	391,800	18,800	....
Net profit	£82,300	£52,300	£30,000	....

DETROIT, GRAND HAVEN & MILWAUKEE RY. CO.

Revenue for Nov.:

	1905.	1904.	Increase.	Decrease.
Gross receipts	£ 28,200	£ 23,200	£5,000	...
Working expenses	21,900	16,200	5,700	....
Net profit	£ 6,300	£ 7,000	....	£700

Aggregate from July 1 to Nov. 30:

	1905.	1904.	Increase.	Decrease.
Gross receipts	£138,000	£133,700	£4,300	....
Working expenses	97,600	93,800	3,800	....
Net profit	£ 40,400	£ 39,900	£ 500	....

TRAFFIC RECEIPTS OF THE SYSTEM.

Aggregate from July 1 to Dec. 31:

	1905.	1904.	Increase.	Decrease.
Grand Trunk	£3,293,305	£3,131,205	£162,100	...
G. T. Western	584,464	525,671	58,793	....
D. G. H. & M.	166,786	160,162	6,624	....
Total	£4,044,555	£3,817,038	£227,517	....

Eastern Canadian Passenger Association.—Following are the officers and committees for the current year:—Chairman, F. F. Backus, Toronto, Hamilton and Buffalo Ry., Hamilton, Ont. Executive Committee—C. E. E. Ussher, C.P.R.; G. T. Bell, G.T.R.; T. Henry, Richelieu and Ontario Navigation Co. Rules Committee—C. E. E. Ussher, G. T. Bell, T. Henry; F. E. Barbour, New York Central and Hudson River Rd.; E. O. Grundy, Quebec Central Ry.; J. F. Chapman, Bay of Quinte Ry.; C. H. Nicholson, Northern Navigation Co.; J. M. Lyons, Intercolonial Ry.; G. Collins, Central Ontario Ry.

The Executive Board of the Canadian Car Service Bureau has elected G. Collins, Receiver and Manager Central Ontario Ry., Trenton, Ont., as chairman, vice the late J. B. Morford.

The Canadian Northern Ry. purposes opening a city ticket, express and telegraph office in Edmonton, Alta. A new building is being prepared for the company on Jasper Ave., which it is expected to occupy early in Feb. H. Sullivan has been appointed agent there.

The Ontario Legislature will be asked next session for an act confirming agreements between the town of Port Arthur, and the Canadian Northern Coal and Ore Dock Co., and the Atikokan Iron Co., with respect to the construction of a coal and ore dock, blast furnace, and other works there.

The Lake Superior Corporation, the parent corporation of the various manufacturing and transportation companies at Sault Ste. Marie, Ont., and of several on the Michigan side of the river, has been licensed in Ontario under the act respecting extra-provincial companies. The Corporation is empowered to do anything the various companies have been authorized to do, and to employ in its operations a capital of $5,000,000. C. D. Warren, Toronto, the President, is named the corporation's attorney.

Transportation Commissioners' Report

The report of the Transportation Commission presented by R. Reford, of Montreal, and J. H. Ashdown, of Winnipeg, has been presented to the Dominion Minister of Public Works. The original members of the Commission were Jno. Bertram, of Toronto, who died; R. Reford, who succeeded him as Chairman, and H Fry, of Quebec, who resigned some time ago. J. H. Ashdown was appointed subsequently. The report recommends the nationalization of the ports Fort William, Port Arthur, and Mission River on Thunder Bay; Depot Harbor, Midland, Port Colborne, Kingston, Montreal, Quebec, St. John, Halifax, Sydney, Vancouver, Victoria, and the Pacific termini of the G.T. Pacific Ry., and the Canadian Northern Ry., and making them free from all charges, except for dry docks and elevators.

Important improvements are suggested in Toronto and Montreal harbors. The improvments in the case of Toronto depend upon ceasing to empty sewage into the bay and the contemplated diversion of the outflow of the Don into Ashbridge's Bay.

The report deals with the whole question of transportation from the inception of wheat shipments to the transhipment at the seaboard. First of all, the commissioners deal with the conditions under which the grain shipments originate, and point out that if proper facilities exist for the carriage of grain from Manitoba, Saskatchewan, and Alberta, the same facilities will be available for return freights. In ordinary seasons there is practically no grain from the Canadian west which is not carried to Fort William and Port Arthur, the only existing outlets for export grain. Statistics are given to show the remarkable growth in storage accommodation by elevators and warehouses. The most striking figures are as follows:—

Year.	Number.	Capacity.
1900	533	18,879,000 bushels
1901	653	29,000,000 "
1902	832	33,356,000 "
1903	982	41,000,000 "
1904	1,026	47,000,000 "

The storage capacity of interior points, 24,456,000; at Fort William 18,462,000; net increase in storage capacity since 1900, 28,000,000 bush. There are some 400 shipping points. There were in 1901, 29 farmers' elevators, with a capacity of 870,000 bush. On Jan. 1 last, the number had grown to 45, with a capacity of 1,320,000 bush. The commissioners commend the legislation passed by the Government for the provision of storage accommodation. They apparently have little to recommend in the way of added convenience, except that they suggest giving the warehouse commissioner power to compel railway companies to place agents temporarily at points where none exist and which may become shipping centres for the time being.

The competition to Canadian routes offered by Buffalo received considerable notice. Reference is made to improved rail facilities between Buffalo and U.S. seaports, and figures are given showing the reduction in freights between Duluth and Buffalo embodied in the following comparative statement:—

	1887.	1904.
Wheat per bushel	$ 18	$ 07
Flour, per barrel	29	13
Manufactured iron, ton	2 35	2 00
Pig iron, ton	2 35	1 50
Iron ore, ton	1 75	63
Lumber	4 00	2 55
Coal	90	40

Taking up the questiou of harbors, the commissioners favor dealing with Fort William, Port Arthur and Mission River as one harbor. It is also urged that before the shores of the Kaministikwia River are fully occupied a slip of sufficient width on the south side of the river should be reserved by the Government, which would obviate buying

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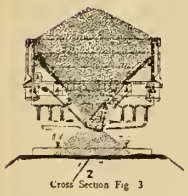


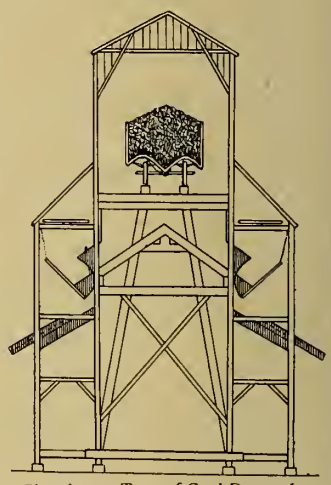
Cross Section Fig 3

Hart Convertible
CLASS C. S.
As Centre Dump Hopper Car.

Cross Section Fig 4

Hart Convertible
CLASS C. S.
As Side Dump Level Floor Car.

3 CARS IN 1



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General Freight Car

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back at considerable cost for future improvement land which has passed out of the national control. The widening of Mission River so as to create a turning basin for vessels is advocated, and the immediate extension of Port Arthur breakwater. The commissioners suggest the provision of an ice-breaker for use in spring and fall so as to lengthen the period of navigation. Where railways connect with the Government docks, Government control of railway tracks on the docks is suggested in such cases as are deemed desirable.

Recommendation is made that the Intercolonial Ry. be extended to Depot Harbor, either by acquiring running rights over the Canada Atlantic Ry. or otherwise. The commission think there should be elevators at Midland and Depot Harbor, with a storage capacity of at least 1,000,000 bush. These should be provided by the railways entering those ports, or, failing that, erected by the Government and tolls charged for their use. With respect to the Welland Canal route, an eastern breakwater is proposed for the protection of Port Colborne. This work is already under way, also a large elevator. In view of the surveys being made by the Government in the Ottawa and Georgian Bay and Welland Canal routes, the commission do not feel disposed to offer any suggestions, but if from commercial or engineering reasons the former work is not adopted, then the Welland Canal should be enlarged and deepened to the standard of the Sault Ste. Marie canal.

The improvements suggested at Toronto are made conditional upon the city handing over to the Government lands on the waterfront of the harbor, including water lots and lands recently acquired in connection therewith, together with such piers and docks as are now owned by the corporation, and upon the basins between the piers being kept free from sewage. The suggested improvements are:—Entrance to the harbor east and west dredged to the depth of 16 ft., channel of 300 ft. to be dredged through the harbor, piers between the entrance to be extended in to 18 ft. of water, shoal at the eastern entrance to be removed, groynes to be built at the west end of the island, city piers to be extended, and the water at the piers to be dredged to a depth of 16 ft. The River Don to empty into Ashbridge's Bay instead of into the harbor. Before the above action is taken, the commissioners say, there must be full consideration of all the questions connected therewith, including cost, land required, and of the issues raised by reason of the Don diversion.

Montreal should be made a free port on lines laid down, and a branch of the G.T. Pacific Ry. should be extended so as to touch at the most convenient point.

The ports nationalized as suggested should be administered by a board of harbor commissioners to be connected with the department.

Orders by the Railway Commissioners.

The following orders have been issued by the Board of Railway Commissioners:—

834. Dec. 20.—Authorizing the C.P.R. to construct a subway in lieu of a level crossing at Rachel St., Winnipeg.

835. Dec. 22.—Sanctioning deviation from the previously located line of the C.P.R. between mileage 98 and 101, on the Toronto-Sudbury branch now under construction.

836. Dec. 22.—Authorizing the G.T.R. to leave out the filling and packing mentioned in sec. 230 of the Railway Act from Dec. to April, inclusive, in each year.

837. Oct. 14.—See following article.

838. Dec. 22.—See following article.

839. Dec. 22.—Authorizing the C.P.R. to construct and operate a siding across two public highways, west of Myrtle station, in Whitby township, ontario County, Ont.

840. Jan. 2.—Approving overhead highway crossing, mileage 64.5, Guelph & Goderich Ry.

841. Jan. 5.—Authorizing the Village council of Hensall, Ont., to carry a drain under the G.T.R. tracks.

842. Jan. 5.—Authorizing the C.P.R. to construct spur line to Canadian Oil Co.'s premises at Toronto.

843. Jan. 5.—Approving plans of additions and alterations to bridges on the Fort William and Ignace sections of the C.P.R.

844. Jan. 5.—Authorizing the South Malahide Telephone Co. to carry its wires across the G.T.R. tracks at a point east of the public road east of the G.T. station at Aylmer, Ont.

845. Jan. 4.—Sanctioning plans for a deviation from the previously located line of the Atlantic, Quebec and Western Ry. from Paspebiac easterly to end of tenth mile.

845a. Jan. 5.—Approving plans for the substructure of a bridge over the Muskoka River at Bala, Ont., for the C.P.R.

847. Jan. 5.—Authorizing the C.P.R. to construct a branch line at Toronto Jct. to the Toronto Furnace and Crematory Co.'s premises.

848. Nov. 14.—Authorizing the crossing by the Brandon, Saskatchewan and Hudson Bay Ry. of the C.P.R. tracks at Boissevain, Man.

849. Nov. 14.—Authorizing the crossing by the Brandon, Saskatchewan and Hudson Bay Ry. of the Canadian Northern Ry. at Minto, Man.

850. Jan. 8.—Amending order permitting the Hamilton Radial Electric Ry. to cross the Toronto, Hamilton and Buffalo Ry. tracks.

851. Jan. 9.—Authorizing the Bell Telephone Co. to carry its wires over the G.T.R. tracks just north of freight house, Point Edward, Ont.

852 to 857 inclusive. Jan. 9.—Approving plans for the location of the Niagara-Welland Power Co.'s electric railway, in Ingersoll, Chinguacousy, Toronto Gore, Etobicoke, York, Barton, West Flamboro, East Flamboro, South Dumfries townships and the town of Ayr, Ont.

858. Jan. 9.—Authorizing the G.T.R. to construct a branch line to the South River Lumber Co.'s premises at South River, crossing Main St., Broadway, Mary St., Dublin St., and Ottawa Ave., in the township of Machar, Ont.

859. Jan. 9.—Approving change of location for the Toronto and Hamilton Ry. between mileage 34, at Burlington, and mileage 40.5 in the township of Saltfleet, Ont.

860. Jan. 9.—Authorizing the Niagara, St. Catharines and Toronto Ry. to replace bridge over the G.T.R. at Thorold, Ont.

861. Jan. 10.—Authorizing the Consumers Gas. Co. to lay a gas main under the G.T.R. tracks at Toronto.

862. Jan. 10.—Authorizing Palmerston Town Council to lay a sewer pipe under the G.T.R. tracks there.

863. Jan. 10.—Authorizing the Peterborough Light and Power Co. to lay a gas main under G.T.R. tracks at Peterborough, Ont.

864. Jan. 10.—Authorizing the St. John's, Que., City Council to carry a sewer under the G.T.R. tracks in St. John's.

865. Jan. 9.—Authorizing the Brantford, Ont., City Council to carry a sewer under the G.T.R. tracks.

866. Jan. 11.—Sanctioning location plans for the Toronto and Niagara Power Co.'s electric railway through Binbrook and Seneca townships, Ont.

867. Jan. 11.—Authorizing the Canadian Northern Ry. to construct and instal an interlocking plant at Carberry, Man., where it crosses the C.P.R. line.

868 to 870 inclusive. Jan. 11.—Sanctioning the location plans of the Niagara-Welland Power Co. through Waterloo, Wilmot, North and South Easthope, London, Westminster, Yarmouth, Burford, Brantford, South and North Dumfries, Ont.

871.—Sanctioning location of the West Selkirk branch of the C.P.R., mileage 26. to mileage 35.4, Winnipeg Beach to Gimli, Man.

872.—Approving plans for reinforcement of steel viaducts 1.8 and 0.9, North Toronto branch, Don viaduct, C.P.R.

873.—Approving plans for proposed piers and abutments of the crossing of the Severn River on the Toronto-Sudbury branch, C.P.R.

874. Jan. 12.—Authorizing J. Hamill to carry an electric light wire over the Shuswap and Okanagan Ry. tracks at Armstrong, B.C.

875. Jan. 13.—Authorizing the C.P.R. to construct an additional track across Louisa St., Tweed, Ont.

876. Dec. 8.—Ordering the G.T.R. to construct a suitable crossing of the Lesperance Road, Tecumseh, Ont., certain costs of the work to be borne by the township council, which is also to maintain the road, while the G.T.R. is to maintain the planking and cattle guards, at the cost of the township council.

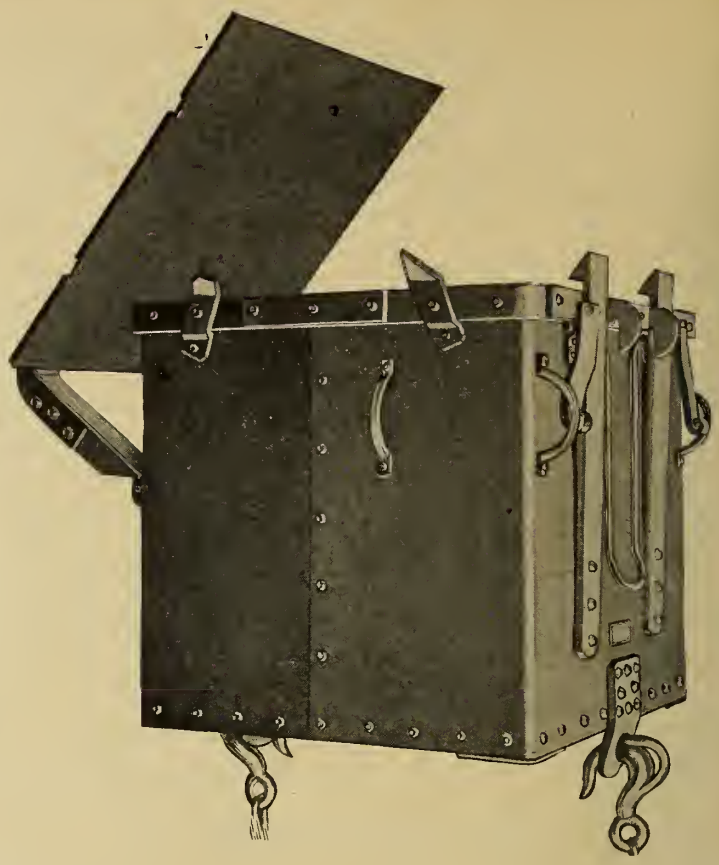
877. Jan. 16.—Authorizing the Quebec Ry., Light and Power Co. to construct a branch line to the Robitaille distillery at Beauport, Que.

Railway Commissioners' Freight Orders.

837. Oct. 14, 1905. In the matter of the applications of E. Williams & Co., proprietors and operators of the stone quarry at Rockspur, on the Teulon Branch of the C.P.R., about 33 miles north of Winnipeg; and of the said E. Williams & Co., Patterson & Co., Irwin & Son, and the Winnipeg Supply Co., doing business at or near Stonewall station, on the said branch, as quarry men and dealers in rubble and crushed stone, complaining "that in respect of the tolls for the carriage of the products of the applicants' quarries to Winnipeg, the C.P.R. Co. charges other persons, firms, and corporations lower tolls for the same or similar services than it charges to the applicants under substantially similar circumstances and conditions, whereby an undue preference is given and an unjust discrimination is made against the applicants, for an Order, under sec. 251 to 254, inclusive, of the Railway Act, 1903, directing the C.P.R. Co. to restore the former rate of 2¾c. from the applicants quarries at Rockspur and Stonewall, or fixing some other rate as a uniform rate from all the quarries on the Teulon branch, or for such other relief as to the Board may seem proper." Upon hearing counsel for the applicants and the railway company, the evidence adduced and what was alleged; and upon the report of the Chief Traffic Officer of the Board—The Board orders that the C.P.R. tariff, published Aug. 26, 1905, increasing the rate on rubble and crushed stone from the applicants' quarries to 3¼c. per 100 lbs., be disallowed, and that the former rate of 2¾c. per 100 lbs. from Stonewall, Rockspur, and Gunton, to Winnipeg, be restored not later than Jan. 8, 1906.

THE BRITISH COLUMBIA DISTILLERY CASE.

In the matter of the application of the British Columbia Distillery Co. for a reduced rate of freight from any point on the Vancouver, Westminster, and Yukon Ry. Co.'s tracks, adjacent to the C.P.R. tracks on Front Street, New Westminster, for the purposes of the applicants' distillery at Sapperton, B.C. Upon hearing counsel for appli-



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Jersey City, N. J.

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Realizing that only through proper handling facilities could we hope to successfully and properly distribute this vast amount of concrete, we ordered several classes of concrete buckets from leading manufacturers. From you we obtained three buckets on trial, and found them so satisfactory that we placed an order for five additional Later on in the season, when we found our needs increasing, we again placed an order with you for six more buckets--at the same time suggesting some changes that would adapt them to our peculiar work. These last have arrived and are giving entire satisfaction.

Out of the sixty-two buckets which we have on this work, we have found that for all around good concrete work, your bucket has no superior. It is easily handled, requires practically no effort in dumping, and leaves no concrete clinging to the sides.

Yours very truly,

THE SAND FILTRATION CORPORATION OF AMERICA.

Jno. S. Macclennan.

GENERAL MANAGER.

JONES' PATENT

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cants, the Vancouver, Westminster, and Yukon Ry. Co., and the C.P.R. Co., the evidence adduced, and what was alleged; and upon the report of its Chief Traffic Officer—The Board orders that on grain and malt in carloads of not less than 30,000 lbs., received at New Westminster from outside points, over the C.P.R. rails, consigned to the applicants' distillery at Sapperton, the Vancouver, Westminster, and Yukon Ry. Co. do forthwith establish a freight rate of 2½c. per 100 lbs. from any point on its tracks on Front St., New Westminster, convenient for the purpose, to the applicants' siding at Sapperton, the cost of transhipment from the cars on the C.P.R. tracks to the cars on the V., W. & Y.R. tracks to be borne by the applicants; and that the said freight rate be published and filed with the Board, as required by sec. 262 and 274 of the Railway Act, 1903; this order to be and continue in force only until the V., W. & Y. R. tracks are joined with the C.P.R. tracks in New Westminster, and the Board shall have made an order dealing with the switching arrangements between the said two railway companies within the city of New Westminster, the said last mentioned order, when issued, to be substituted for and supersede this temporary order.

Passenger Meetings at Toronto.

Three important passenger meetings were held in Toronto on Jan. 17, 18 and 19. The rate clerks of the lines comprising the Niagara Frontier Summer Rate Committee met on Jan. 17 and arranged details as far as possible. The committee met on the morning of Jan. 18. In the absence of the Chairman, J. E. Bentley, G.P.A. Central Vermont Ry., Mr. Hanley, his chief clerk, called the meeting to order. A. H. Hanscom, G.P. & T.A. Eastern Steamship Co., Boston, Mass., was elected Chairman for the current year, and presided. G. C. Wells, A.G.P.A. Canadian Pacific Ry., Montreal, performed his duties as Secretary.

The following lines were represented: Algoma Central S.S. Line, Bay of Quinte Ry., Boston & Maine Rd., Buffalo, Rochester and Pittsburg Ry., Canadian Northern Ry., Canadian Pacific Ry., Central Rd. of New Jersey, Central Vermont Ry., Cleveland, Cincinnati, Chicago and St. Louis Ry., Cleveland & Buffalo Transit Co., Delaware and Hudson Rd., Delaware, Lackawanna and Western Rd., Deseronto Navigation Co., Detroit and Buffalo Steamboat Co., Detroit and Cleveland Navigation Co., Dominion Atlantic Ry., Eastern S.S. Co., Erie Rd., Goodrich Transportation Co., Grand Trunk Ry., Huntsville, Lake of Bays and Lake Simcoe Navigation Co., Intercolonial Ry., Lake Erie and Western Rd., Lake Ontario and Bay of Quinte Steamboat Co., Lake Shore and Michigan Southern Ry., Lehigh Valley Rd., Mackenzie, Mann & Co. Ry. System, Eastern Lines, Magnetawan River and Lakes Steamboat Co., Maine Central Rd., Manitou S.S. Co., Michigan Central Rd., Muskoka Lakes Navigation and Hotel Co., New England Navigation Co., New York Central Rd., New York, Chicago and St. Louis Rd., New York and Ottawa Rd., Niagara Gorge Rd., Northern Navigation Co. of Ontario, Northern S.S. Co., Ontario and Quebec Navigation Co., O'Connor Steamboat Co., Ottawa River Navigation Co., Parry Sound Yachting Fleet, Pennsylvania Rd., People's Line Steamers, Philadelphia and Reading Rd., Quebec and Lake St. John Ry., Quebec Central Ry., Queen and Crescent Route, Richelieu and Ontario Navigation Co., Rideau Lakes Navigation Co., Rutland Rd., Seaboard Air Line, St. Lawrence River Steamboat Co., Temiskaming and Northern Ontario Ry., Thousand Islands Steamboat Co., Thousand Islands Ry., Toronto, Hamilton and Buffalo Ry. Turbine S.S. Co., United States and Dominion Transportation Co., White Line Transportation Co., White Star Line.

The tourist rates for the season of 1906 as adopted by the meeting are substantially the same as last year, the principal changes being caused by the new lines of the C.P.R. and James Bay Ry., which will be running into Muskoka next summer and the further exploitation of the Temagami district of Northern Ontario.

The Great Lakes and St. Lawrence River Rate Committee met on Jan. 18 at 2 p.m. W. F. Herman, G.P.A. Cleveland and Buffalo Transit Co., was elected chairman, and Jas. Morrison, Chief Rate Clerk C.P.R., Montreal, performed his duties as Secretary.

The following lines were represented:—Algoma Central S.S. Line, Anchor Line, Canadian Pacific Ry., Cleveland and Buffalo Transit Co., Detroit and Buffalo Steamboat Co., Detroit and Cleveland Navigation Co. Goodrich Transportation Co., Grand Trunk Ry., Magnetawan River and Lakes Steamboat Co., Manitou S.S. Co., Michigan Transportation Co.. Muskoka Lakes Navigation and Hotel Co., Niagara Gorge Rd., Niagara Navigation Co., Northern Michigan Transportation Co., Northern Navigation Co. of Ontario, Northern Steamship Co., Ontario and Quebec Steamship Co., Ottawa River Navigation Co., Richelieu and Ontario Navigation Co., Rideau Lakes Navigation Co., St. Lawrence River Steamboat Co., United States and Dominion Transportation Co., White Star Line. The various rates, etc., were agreed on and ordered to be embodied in the official proceedings.

The International Water Lines Passenger Association met on Jan. 19. In the absence of President A. J. Markham, G.P.A. of the Anchor Line, through illness, the Vice-President, J. Berolzheim, G.P.A. Manitou S.S. Co. took the chair; M. R. Nelson performed his duties as Secretary.

The following lines were represented: Algoma Central Steamship Line, Anchor Line, Arnold Transit Co., Ashley-Dustin Steamers, Canadian Pacific Steamship Line, Champlain Transportation Co., Citizens Steamboat Co. (Hudson River), Crosby Transportation Co.. Deseronto Navigation Co., Detroit and Buffalo Steamboat Co., Detroit and Cleveland Navigation Co., Dunkley-Williams Co. (South Haven Line), Goodrich Transportation Co., Graham and Morton Transportation Co., Green Bay Transportation Co., Hackley Transportation Co., Hudson River Day Line, Lake Ontario and St. Lawrence River Day Line, Lake Ontario and Bay of Quinte Steamboat Co., Maine Steamship Co. (Portland Line), Manitou Steamship Co., Merchants Montreal Line, Michigan Transportation Co. (The So. Haven Line), Niagara Navigation Co., Northern Michigan Transportation Co., Northern Navigation Co., Northern Steamship Co., Ontario and Quebec Navigation Co., Ottawa River Navigation Co., Pere Marquette Line Steamers (M.S.T. Co.), People's Evening Line Steamers (Hudson River), Richelieu and Ontario Navigation Co., Rideau Lakes Navigation Co., St. Louis and Tennessee River Packet Co., Thousand Islands and St. Lawrence River Steamboat Companies, U.S. and Dominion Transportation Co., White Star Line.

A gavel, made from the hull of the str. Independence, the first steamer operated on Lake Superior, was presented to the Association to be the personal property of the retiring President, A. J. Markham.

The following subjects had been listed for discussion:

"Uniform rate of transfer at Buffalo, Cleveland and Detroit." This was laid on the table.

"Uniform system of settling for transfer between receiving and delivery lines." It was the sense of the meeting that the receiving line should pay all transfers of passengers and baggage, and that committees be located at Buffalo, Cleveland and Detroit to further this.

"Agreement between all lines interested, not to reserve state rooms by telephone." "Agreement that all messages making reservations for state rooms shall be prepaid, and messages sent collect." It was the sense of the meeting that these subjects be referred to the lines at the different ports for such action as could be obtained.

"Unjust inspection." "Taxation." As these are matters relating to the operating departments they were passed over.

"Responsibility of carriers against loss of freight or baggage." This question was brought before the meeting very fully in a communication from C. H. Nicholson, Traffic Manager Northern Navigation Co., and definite action was deferred to the next annual meeting, as it is expected that in the meantime the matter will be definitely acted on by interested rail lines.

"Limiting the combination routes shown in the tariff publication." It was decided to make no change in the construction of the sheet in this respect.

The election resulted as follows: President, J. Berolzheim, G.P.A. Manitou S.S.Co., Chicago; Vice-President, C.E.E. Ussher, G.P.A. C.P.R. Eastern Lines, Montreal; Executive Committee, one year, C. F. Beilman, Traffic Manager White Star Line, Detroit; two years, T. Henry, Traffic Manager, R. & O. Navigation Co., Montreal; F. B. Hibbard, G.P.A. Hudson River Day Line, is the other member of the executive, having been elected at last year's meeting in Buffalo. Auditing Committee, W. M. Lowrie, G.P.A. Northern Steamship Co., New York; B. W. Folger, Manager Niagara Navigation Co., Toronto; A. A. Schantz, G.S. & T.M. Detroit & Cleveland Navigation Co., Detroit, Mich.; Secretary, M. R. Nelson, Northern Steamship Co., 379 Broadway, New York City.

At each of the three meetings resolutions of sympathy were passed in connection with the deaths of C. F. Gildersleeve, President Lake Ontario and Bay of Quinte Steamboat Co., and A. P. Cockburn, Manager Muskoka Lakes Navigation and Hotel Co.

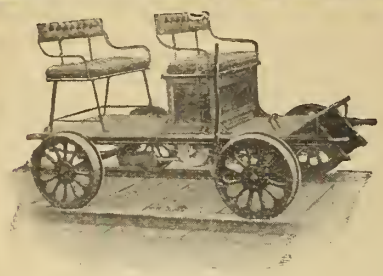
Acton Burrows, Manager of THE RAILWAY AND MARINE WORLD, attended the meetings of the Great Lakes and St. Lawrence River Rate Committee and the International Water Lines Passenger Association, by invitation.

On the evening of Jan. 17 the members attending the meetings were entertained at supper by the King Edward Hotel Co. An excellent musical programme was presented and short speeches were made by a number of transportation men.

The next annual meetings of the Niagara Frontier Summer Rate Committee, the Great Lakes and St. Lawrence River Rate Committee and the International Water Lines Passenger Association will be held at the Transportation Club, Buffalo, N.Y., Jan. 1907.

The International Ry. of New Brunswick is conducting a freight business on the first 20 miles of its line from Campbellton to the Upsalquitch River, N.B., and it is expected that a regular passenger and freight service will be put in operation May 1.

An Order-in-Council has been passed under sec. 40 of the Government Railways Act, to authorize and impose the collection of the maximum wharfage tariffs of the Intercolonial and Prince Edward Island Ry., in supercession of existing tariffs at the following points: St. John, Moncton, Point du Chene, Dorchester, Newcastle, Chatham, Dalhousie, N.B.; Halifax, Pictou, Pugwash, Pictou Landing, Mulgrave, Point Tupper, North Sydney, N.S.; Charlottetown, Mount Stewart, Georgetown, Souris, Murray River, Summerside, Alberton, P.E.I.



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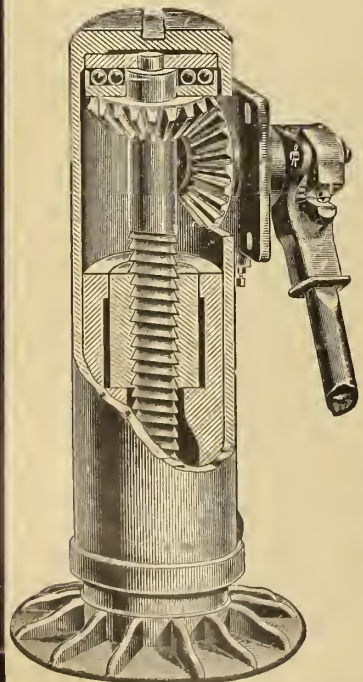

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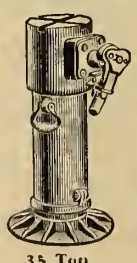

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Canadian Freight Association.

At the quarterly meeting in Montreal, Jan. 11, the following were elected active members: R. N. Collyer, G.A. Wabash Rd., Buffalo, N.Y.; E. O. Grundy, G.F.A. Quebec Central Ry., Sherbrooke, Que. The following resignations were accepted: J. J. Mossman, Wabash Rd.; J. H. Walsh, Quebec Central Ry.; W. E. Mullins, Central Vermont Ry.

The classification committee recommended a number of additions to and changes in the classification, which were adopted and will be submitted to the Board of Railway Commissioners for approval as supplement 6.

Carl Howe, A.G.F.A. Michigan Central Rd., Buffalo, N.Y., was elected a member of the advisory committee vice B. B. Mitchell, Freight Traffic Manager of the same road, who found he could not attend the meetings.

A select committee, composed of legal and traffic officers of a number of principal lines, was appointed to confer with the Board of Railway Commissioners respecting bills of lading and other traffic forms requiring approval by the Board.

The constitution, by-laws and rules of procedure of the various standing committees were very fully considered and amended in several important particulars, the principal change being the substitution of membership by lines instead of by individuals, and the consequent elimination of honorary membership. The section regarding membership is as follows: "The membership of the Association to consist of railway and inland steamship lines participating in the expenses of the Association and having at least one terminus in Canada. Their representation to consist of officers and territorial representatives having jurisdiction over rates and regulations governing freight traffic within the territory of the Association."

Canadian Central Ry.—Notice has been given that application would be made next session of the Saskatchewan Legislature for an act incorporating a company with this title to construct a railway from Regina south and south-westerly to the International boundary; also a railway from Wood Mountain to the western boundary of the Province; also a line from Regina north-westerly to the south branch of the Saskatchewan River, thence to the western boundary of the Province; also a line from Regina south and south-easterly to the International boundary.

The Dominion Bridge Co., Montreal, has been licensed to do business in Manitoba under the provisions of the Foreign Corporations' Act, and has appointed E. E. Sheppard of Winnipeg its attorney.

The Ottawa and New York Ry. has established a watch inspection system for trainmen on its line under Webb C. Ball Co., of Cleveland, Ohio, General Time Inspector of the New York Central lines.

The McArthur Construction Co. of Canada has been incorporated under the Dominion Companies' Act, with a capital of $6,000,000 and offices at Montreal, to carry on a general construction business. The provisional directors are: A., A. F. McArthur, Chicago, Ill.; J. McArthur, New York; W. J. Poupore, G. C. Foster, Montreal.

The Empire Construction Co. has been incorporated under the Dominion Companies' Act, with a capital of $1,000,000 and offices at Montreal, for the purpose of carrying on a general construction business. The provisional directors are: Vicomte L. C. de Buisseret, Baron C. Goffinet, Comte J. d'Oultremont, E. Fichfet, L. Goffin, L. Greiner, G. Macquet, A. Rouffert, E. Rouffert, L. C. de Buissert, of Belguim; J. B. Tudhope, Orillia, Ont.; H. W. Fleury, Aurora, Ont.; P. Galibert, T. Gauthier, Montreal.

Engineers' Club of Toronto.

The sixth annual meeting of the Engineers' Club of Toronto, was held Jan. 11, when a committee was appointed to revise the constitution. The following were elected officers for the current year: President, F. L. Sommerville, Resident Engineer G.T.R., Toronto; First Vice-President, C. B. Smith, Chairman Temiskaming and Northern Ontario Ry. Commission; Second Vice-President, J. C. Sing; directors: J. S. Fielding, C. N. Canniff, R. G. Black; Treasurer, W. J. Bowers; Secretary, W. Chipman; Auditors, A. J. Van Nostrand, C. H. Heys. The number of members Jan. 1 was reported to be 117 resident and 28 non-resident.

R. F. Tate, Resident Engineer Mackenzie, Mann & Co., Toronto, the retiring President, delivered an address in which he reviewed the work of the club for the year, and referred to a number of the engineering events of the year. The great development in steam railway lines in Canada, he said, is of paramount interest. In 1905 the construction of our third transcontinental railway was commenced. This line, the Grand Trunk Pacific Ry., including the Government section, forming the National Transcontinental Ry., has given employment to a small army of Canadian engineers, principally on survey work during the year. In the progress of railway building during the year, however, the second transcontinental railway, the Canadian Northern Ry., together with the other lines forming the Mackenzie and Mann system—take first rank. The Canadian Northern Ry. on Nov. 21, 1905, reached Edmonton, Alta., 1,265 miles from Port Arthur, Ont. About 525 miles of new grade had been built and 600 miles of new track laid during the year. The C.P.R. has well maintained its progress in new grade and new track laid, besides extensive betterments which are constantly being carried out. In referring to betterments being made, as engineers they must all admire the G.T.R. for evidencing its appreciation of the value of low graduation in the bold and extensive work of this character it has already accomplished, as well as upon the completion of the second track of the line between Montreal and Sarnia tunnel, via Hamilton and Brantford—a distance of 510 miles on Canadian soil. The next railway of importance in the review of the year is the Temiskaming and Northern Ontario, which is being constructed by the Ontario Government, through a Commission of which the Club's First Vice-President is the Chairman. The line starting at North Bay, Ont., is now railed for 155 miles, with grading constructed for 60 miles beyond track end, with surveys projected 60 miles beyond this, and exploring parties through to James Bay.

In electrical power development there are the great companies at Niagara Falls, on the Canadian side, which are at present in a position to deliver over 60,000 electrical h.p., and will ultimately deliver 400,000 h.p. of 24 hour power. One of these—the Toronto and Niagara Power Co —has its power line on its own right of way 80 ft. wide, constructed on steel towers, and about completed to Toronto, and when an electric railway is laid and put in operation it will be one of the most capable and powerful electric traction roads in existence. Reference was also made to the power development of the Hamilton Cataract Power Light and Traction Co., now delivering 9,000 h.p. of 24 hour power, and capable of producing altogether 40,000 h.p.; to the development at the Kakabeka Falls near Fort William, Ont., and the power plants in Quebec province; to the production of steel rails at Sault Ste. Marie, Ont., and Sydney, N.S.; and to the manufacture of the highest class of bridge work called for by the Canadian railway specifications, at the works of the Canadian Bridge Co., Walkerville, Ont ; the Hamilton Bridge Works, Hamilton, Ont.; the Canada Foundry, Toronto, and the Dominion Bridge Works, Montreal. The Canada Foundry Co. recently turned out its first locomotive for the C.P.R., and followed it with a number for the Canadian Northern Ry. The C.P.R., the G.T.R., and a number of industrial concerns engaged in the construction of locomotives and railway rolling stock of all kinds, had more business offering to them than they could handle.

Canadians had demonstrated their ability as ship-builders, resulting in the development of a number of plants Not a great deal of progress was made during the year in connection with the various deep water canal projects—either the deepening of existing canals or channels, or in the new proposals—except in the way of surveys. The rapidly increasing demands for water carriage will force these various projects forward, and the same spirit of Canadian enterprise, which is in evidence everywhere, may be relied upon to carry them out as circumstances demand. There were many enterprises in progress in British Columbia, the Klondike, and other parts of Canada, including the Hudson Bay railway project, and the James Bay Ry., each of which were worthy of a special paper, to which reference might have been made, but time prevented. Reference was made in conclusion to the death of the first President, K. Tully, Engineer to the Toronto Harbor Commissioners, and the third President, Major H. A. Gray. Dominion Engineer in Toronto.

F. L. Sommerville, in his inaugural address, dealt with the future prospects of the profession. He pointed out a number of the lines upon which they might expect to find scope for their energies, particularly referring to the future that lay before the development of water powers for the generation of electric energy for transmission to distant parts for industrial purposes, and for electric traction purposes.

Checking Baggage to Residences, etc.

The C.P.R. and the G.T.R. have arranged to put into operation a new arrangement regarding the special delivery checking of baggage, which, although an innovation in Canada, has been in effect on some of the principal lines in the U.S. for some time, where it is working successfully in the interests both of the transportation lines and the public. The object from the railway standpoint is to avoid congestion at the larger stations and to effect quicker delivery of baggage, particularly in large centres. Under the present system baggage arriving at Toronto station and checked to Toronto only has to be trucked to baggage-room, recorded, sorted and piled in different piles in baggage-room waiting to be claimed; in the majority of cases this is done by the Canadian Transfer Co., whose agents have exchanged checks with owners on trains. After arrival of the train a representative of the Transfer Co. presents duplicate taken up on train to man in charge of the inward room who looks up baggage and makes delivery upon presentation of duplicate checks. The Transfer Co. then takes possession of the baggage, taking same to its room, where it is labelled and sorted before being forwarded on wagons to different parts of the city. This, it can readily be seen, takes up considerable time. Under the proposed system the baggage will be checked direct to residence or hotel of owner, a space on the check being provided for the entering in of the name and address of owner. Upon arrival at Toronto this baggage will be immediately separated from baggage checked to Toronto proper and delivered direct to the Transfer Co.,

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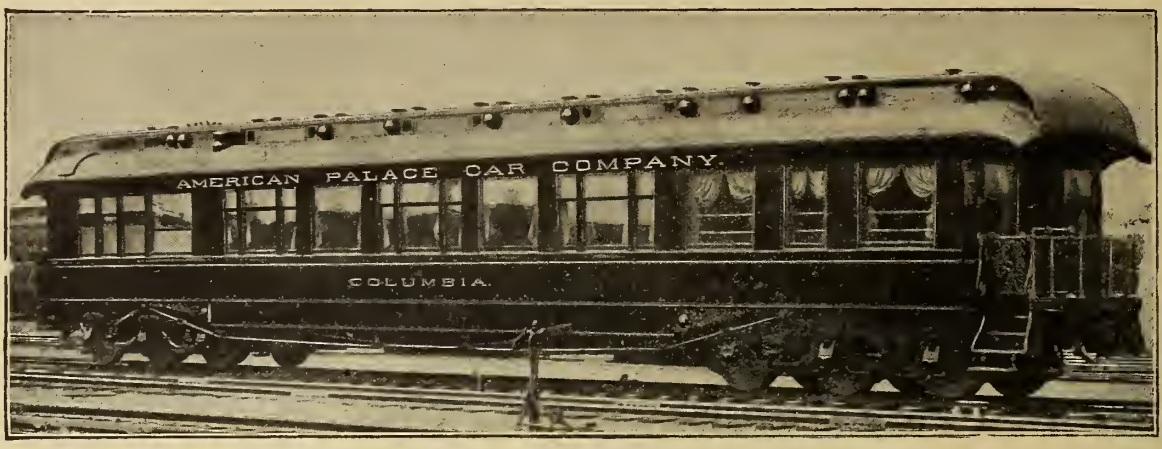

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which can then make immediate delivery. This system avoids the unnecessary delay previously outlined, and which has been occasioned in the past. It will be no additional expense to passengers as the rates for special delivery are the same as they would pay for the transfer from the station to residence after arrival at the city, and will obviate the necessity of passengers hunting up someone to make delivery of baggage at destination. The check received at station from which they start will carry baggage direct to the residence or hotel, and will avoid the necessity of exchanging checks with transfer representatives on train, and as before stated, will insure more prompt delivery of baggage at destination. While this will entail more work and expense upon the railway companies performing the service, they will be amply repaid by the better service and better satisfaction to the travelling public who, it is expected, when they become acquainted with the system, will generally avail themselves of it. At the Grand Central station, New York City, during the tourist season as many as 300 and 400 pieces of baggage per day are checked through for special delivery. It is intended at present to adopt this system only at Montreal, Toronto and Hamilton, points at which there is the largest congestion of baggage, but undoubtedly in the near future as it becomes better established it will be extended to some other large cities in Canada. This is being adopted jointly by the C.P.R. and G.T.R. in connection with the Canadian Transfer Co., which operates in the above cities.

Railway Equipment Notes.

The International Ry. of New Brunswick has two locomotives and 25 flat cars in operation.

The Cumberland Ry and Coal Co. has ordered 100 coal cars from Rhodes, Curry & Co., Amherst, N.S.

The Intercolonial Ry. has received two parlor and observation cars, which have been named Dufferin and Grey.

The Great Northern Ry., U.S., has put on a complete new equipment of passenger cars for its trains between Seattle, Wash., and Vancouver, B.C.

The Temiskaming and Northern Ontario Ry. has ordered a 75-ton wrecking crane, a 25-ton pull ballast unloader, and a ballast plough from F. H. Hopkins & Co., Montreal.

The Central Vermont Ry. has ordered from the American Locomotive Co. four 10-wheel passenger locomotives, and 10 Richmond compound consolidation freight locomotives.

The Alberta Ry. and Irrigation Co. has sold a locomotive, a passenger coach and 12 freight cars of its abandoned narrow gauge equipment to a mining company in Washington state.

The Klondike Mines Ry.'s equipment consists of two locomotives bought from the White Pass and Yukon Rd., 15 box cars, 15 flat cars and two passenger cars. It is not intended to buy any new equipment this year.

The Locomotive and Machine Co. of Montreal, delivered during Jan. three 10-wheel locomotives per week to the C.P.R., and has completed the delivery of six 2½-yd. Atlantic type steam shovels to the same company.

The Department of Railways is considering the question of adopting a gasoline motor car or cars on certain sections of the Prince Edward Island Ry., but we were informed Jan. 25, that no decision had been reached in the matter.

The G.T.R. during the last three months of 1905 added the following rolling stock: six Richmond compound mogul locomotives from the Canadian Locomotive Co., Kingston, Ont.; 114 box cars, 60,000 lbs. capacity, from the Canada Car Co., Montreal; four baggage cars from its Montreal shops, and seven cabooses from its Port Huron, Mich., shops.

The G.T.R. has placed orders for new locomotives as follows:—10 ten-wheel passenger engines, 55 Richmond compound consolidation engines from the Locomotive and Machine Co. of Montreal; 10 ten-wheel passenger engines from the American Locomotive Co., New York; and six Richmond compound consolidation engines from the Canada Foundry Co., Toronto.

The special equipment of the box, flat, stock and refrigerator cars, ordered from Rhodes, Curry & Co., Amherst, N.S., and the Crossen Car Manufacturing Co., Cobourg, Ont., the numbers of which were given in our Dec. issue, include Simplex bolsters, Susemihl roller side bearings, Simplex brake beams, Canadian Bronze Co.'s journal bearings, Westinghouse air brakes, and American Asphaltum and Rubber Co.'s pioneer plastic roofing.

We are advised in connection with the press reports that the Michigan Central Rd. was discontinuing the building of locomotives at its Canadian shops, St. Thomas, Ont.; that for the last two years it has only built switching engines there. At present the company has all the switching engines it requires in Canada, and locomotive building, therefore, has been discontinued at St. Thomas until more of this class of power is required in Canada.

The Alberta Ry. and Irrigation Co. has purchased a private car which has been named Lethbridge. The car was built at the C.P.R. shops, Montreal, and is fitted and decorated in the same manner as the latest sleeping cars of the C.P.R. Its dimensions are 62 ft. long over all, and 9 ft. 8 in. wide, with observation platforms at each end, 3 ft. 4 in. deep. The car is divided from front to rear as follows:—dining-room 11 ft. 6. in.; baggage-room 3 ft.; kitchen 7 ft. 10 in.; porters' room 4 ft. 6 in.; bathroom 10 ft.; bathroom and general toilet room; open seats, arranged to make into berths when required, and office desk; observation room.

Orders have been placed for the following passenger equipment for the Mackenzie, Mann & Co. railway lines, most of which is included in the particulars given in our Dec. issue:—10 day coaches and three baggage cars with Rhodes, Curry & Co., Amherst, N.S.; 10 day coaches and five mail and express cars with the Crossen Car Manufacturing Co., Cobourg, Ont.; and 8 day coaches, three sleeping cars and two dining cars in the U.S. The specifications for all these cars include Susemihl roller side bearings; Safety Car Heating and Lighting Co.'s steam heat attachments in conjunction with Baker heaters; Westinghouse air brakes with train signal.

Following are fuller specifications of the 20 ten-wheeled simple locomotives ordered for Mackenzie, Mann & Co.'s lines from the Canada Foundry Co., Toronto, than were given in our January issue:—

WEIGHT.—On drivers, 130,000 lbs.; total 160,000 lbs.
CYLINDERS.—Diameter, 19 in.; stroke of piston, 26 in.
WHEELS.—Diameter of drivers, 57 in.; centres, east steel, 50 in. diameter.
BOILER.—Type, extended wagon top; working steam pressure, 200 lbs.
TUBES.—Number, 240; outside diameter, 2 in.; length, 14 ft.
FIREBOX.—Length, 9 ft. 1⅛ in.; width, 3 ft. 6 in.; grate area, 31 ft. 8 in.
TENDER.—Tank capacity, 5,000 imperial gallons; 11 tons coal.
SPECIAL EQUIPMENT.—Westinghouse air brake, Simplex brake beams, Canadian Bronze Co.'s journal bearings.

Deliveries to be made at the rate of one per week commencing in May.

Following are dimensions of the 4 six-wheel switching locomotives ordered for Mackenzie, Mann & Co.'s railways, for April delivery, from the Canada Foundry Co., Toronto:—

WEIGHT.—All on drivers, 130,000 lbs.
CYLINDERS.—Diameter, 19 in.; stroke of piston, 24 in.
WHEELS.—Diameter of drivers, 50 in.; wheel centres, cast steel, 44 in. diameter.
BOILER.—Type, straight top; working steam pressure, 180 lbs.
TUBES.—Number, 2,701; outside diameter, 2 in.; length, 10 ft. 6 in.
FIREBOX.—Length, 96 in.; width, 34⅜ in.
TENDER.—Capacity, 3,200 imperial gallons; six tons of coal.
SPECIAL EQUIPMENT.—Westinghouse air brake; Simplex brake beams, Canadian Bronze Co.'s journal bearings.

The principal dimensions of the 10 ten-wheel simple locomotives ordered from the Canadian Locomotive Co., Kingston, Ont., for the Mackenzie, Mann & Co.'s lines, for delivery in July and August, follow:—

WEIGHT.—On drivers, 107,000 lbs.; total, 135,000 lbs.
CYLINDERS.—Diameter, 18 in.; stroke of piston, 24 in.
WHEELS.—Diameter of driving wheel, 63 in.; wheel centres, cast iron, 56 in. diameter.
BOILER.—Type, radial stayed wagon top; working steam pressure, 200 lbs.
TUBES.—Number, 236; outside diameter, 2 in.; length 13 ft.
FIREBOX.—Length, 102 in.; width, 41 in.
TENDER.—Capacity, 5,000 imperial gallons; 10 tons coal.
SPECIAL EQUIPMENT.—Westinghouse air brake, Simplex brake beams, Canadian Bronze Co.'s journal bearings.

Following are general dimensions of the 10 ten-wheel simple locomotives ordered for Mackenzie, Mann & Co.'s lines from the Locomotive and Machine Co. of Montreal, which were referred to in our Dec. issue as having been ordered:—

WEIGHT.—On drivers, 105,785 lbs.; total, 135,345 lbs.
CYLINDERS.—Diameter, 18 in.; stroke of piston, 24 in.
WHEELS.—Diameter of driving wheel, 62 in.; centres, cast steel, 56 in. diameter.
BOILER.—Type, radial stayed wagon top; working steam pressure, 200 lbs.
TUBES.—Number, 248; outside diameter, 2 in.; length, 13 ft. 2 15-16 in.
FIREBOX.—Length, 103 in.; width, 42 in.;
TENDER.—Tank capacity, 5,000 imperial gallons; 10 tons coal.
SPECIAL EQUIPMENT.—Westinghouse air brakes, Simplex brake beams, Canadian Bronze Co.'s journal bearings.

Delivery is to be made in April.

Prince Edward Island Tunnel.—Rev. Father Burke, who has been prominent in the agitation favoring the construction of a tunnel between Prince Edward Island and the mainland, on his return to P.E.I., from Ottawa, Jan. 19, stated that E. D. Lafleur, one of the engineers of the Department of Public Works, had been examining all the plans and data in the possession of the Department in connection with the matter, and was preparing a report for presentation to Parliament. It was anticipated that the report would be favorable to the project.—(Oct., 1905, pg. 461).

The Canadian Society of Engineers proposes to ask the New Brunswick Legislature next session to pass an act to fix the status of civil engineers, and to regulate the practice of engineering in the province.

A large number of petitions have been presented to the Manitoba Legislature from rural municipalities, towns and villages as well as from the city of Winnipeg, asking for the passage of such legislation as will secure to the Government and the municipalities the control of telephones.

The Manitoba Legislature will be asked at its current session for an act incorporating the Winnipeg-Portage Auto. Road Co., with power to construct and operate a toll road for the exclusive use of automobiles and motor cars between Winnipeg and Portage La Prairie. Potts & Hubbard, Winnipeg, are solicitors for the applicants.

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Railway Subsidies Paid in 1904-05.

The following subsidies were paid by the Dominion Government during the financial year ended June 30, 1905:—

Atlantic and North-Western Ry.....	$ 186,600.00
Atlantic and Lake Superior Ry.....	42,336.86
Algoma Central and Hudson's Bay Ry.	341,440.00
Bruce Mines and Algoma Ry.....	25,120.00
Beersville Coal and Ry.....	20,736.00
C.P.R.—Pheasant Hills branch.....	56,576.00
Halifax and South-Western Ry.....	291,842.00
Kootenay and Arrowhead Ry.....	4,176.15
Lindsay, Bobcaygeon & Pontypool Ry.	185,173.06
Middleton and Victoria Beach Ry...	47,789.00
Orford Mountain Ry.....	38,250.00
South Shore Ry.—Canadian Bridge Co.	3,456.46
St. Mary's River Ry.....	32,134.00
	$1,275,629.53

During the year the Dominion guaranteed the bonds of the following companies:—

QUEBEC BRIDGE AND RY. CO.—The guarantee is for the principal $6,678,200, and for the interest thereon at the rate of 3% per annum for 50 years.

CANADIAN NORTHERN RY.—The guarantee is for the principal and interest thereon at the rate of 3% per annum, of £1,923,287 for 50 years.

GRAND TRUNK PACIFIC RY.—The guarantee is for a sum equal to 75% of the cost of construction of the Western Division of the National Transcontinental Ry., but not exceeding $13,000 a mile in respect of the prairie section of the line.

Railway Finance, Meetings, etc.

Canada Atlantic Ry.—The gross receipts and results of operation of the C.A. Ry. are being included in the returns of the G.T.R. from Jan. 1. Following is a statement of the monthly earnings and working expenses for the half year ended June, 1905:

	Receipts	Expenses	Net Earnings
Jan.....	£24,227	£22,427	£ 1,800
Feb.....	21,487	20,458	1,029
Mar.....	27,903	20,335	7,568
April	28,784	18,237	10,547
May.....	36,290	23,289	13,001
June.....	38,270	24,483	13,787
	£176,961	£129,229	£47,732

Carillon and Grenville Ry.—Following are the officers for the current year:—President, H. Wallis; Vice-President, H. W. Shepherd, Managing Director and Treasurer, R. W. Shepherd.

Grand Trunk Ry.—The assessment of the G.T.R. property in Toronto has been increased by $438,877 over the figure for 1905.

Great Northern Ry. of Canada.—Following are officers and directors for the current year: President, D. B. Hanna, Toronto; Vice-Presidents, F. Nicholls, Toronto; H. H. Melville, Montreal; General Manager, C. W. Spencer, Montreal; other directors: Z. A. Lash, K.C.; W. H. Moore, F. C. Annesley, A. J. Mitchell, Hon. Jules Tessier, V. Choutevert, T. McDougall, and the Mayor of Quebec. The directors are the same as for the previous year with the exception that F. Nicholls and C. W. Spencer have been substituted for Col. McNaught and E. E. Ling. A. J. Gorrie is General Superintendent, and G. Tombs General Freight and Passenger Agent.

Guelph Junction Ry.—The profits for the year on this line were reported to the Guelph Ont., City Council, Jan. 15, to have been about $16,000. The council appointed the following committee to manage the railway: the Mayor, L. Goldie, J. W. Lyon, M. S. Cray, members of the city council; C. L. Dunbar, A. B. Stewart.

Intercolonial Ry.—There was charged to capital on account of the I.C.R. during the financial year ended June 30, 1905, $4,755,577.86.

Revenue for year ended June 30, 1905:—Passenger traffic, $2,105,066.75; freight traffic, $4,373,178.55; mails and sundries, $305,277.53; total, $6,783,522.83 against $6,339,032.27 for same period 1903-04. Working expenses—locomotive power, $3,116,653.49; car expenses, $2,040,133.13; maintenance of way and works, $1,722,616.65; station expenses, $937,816.11; general expenses, $535,541.85; car mileage, $16,065.52; rental of leased lines, $140,000; total, $8,508,826.75 against $7,239,982.04 for same period, 1903-04.

Lake Champlain and St. Lawrence Junction Ry.—This line is operated by the C.P.R. as lessee of the Montreal and Atlantic Ry., which in turn leased it from the owners, the principal of which is the Boston and Maine Rd. Co. The company does not do any business, but the charter is kept alive. T. N. Turner, St. Johnsbury, Vt., is President; and J. O'Halloran, Cowansville, Que., is Secretary-Treasurer.

London and Port Stanley Ry.—The financial report presented at the annual meeting in London, Ont., Jan. 15, showed the receipts to be $18,174.16, made up of $10,000 rental from Lake Erie and Detroit River Ry; interest as rental, $2,596.60; percentage on earnings part of 1903, $889.84; ditto on 1904 earnings, $4,687.72. The total receipts were handed over to the city, which practically owns the line, the only other shareholder of any consequence being the G.T.R., which holds 3,000 shares. Following are the officers and directors for the current year: President, Mayor Judd; Vice-President, Alderman Gillean; other directors: Aldermen Matthews, Wyatt, Cooper, Booth, Greenlees, Garratt, A. White, ex-Alderman Stevely; Secretary, the City Clerk.

Prince Edward Island Ry.—During the financial year ended June 30, 1905, there was charged to capital account $591,412.65.

Revenue for year ended June 30, 1905:—Passenger traffic, $102,505.55; freight traffic, $94,724.70; mails and sundries, $20,100.36; total $217,330.61 against $234,390.03 for same period 1903-04. Working expenses—locomotive power, $109,541.81; car expenses, $56,696.00; maintenance of way and works, $134,379.86; station expenses, $51,881.94; general expenses, $16,206.19; total $368,705.80 against $335,695.44 for same period 1903-04. The figures show a deficit of $151,375.19 against a deficit of $101,305.41 for 1903-04.

Qu'Appelle, Long Lake and Saskatchewan Rd.—Net earnings for Nov., $44,304.50 against $15,251.17 for Nov., 1904.

Application will be made next session of the Dominion Parliament for an act amending the acts relating to the company by altering and enlarging its powers as to borrowing and to the issue of paid up stock, and authorizing the company to sell or lease its railway and undertaking.

Application will be made next session of the Saskatchewan Legislature for an act to incorporate a company for the purpose of acquiring the Qu'A., L. L. and S. Ry. and Navigation Co., and extending its railway. The Qu'A., L.L. and S. Ry. is owned by Osler and Hammond, of Toronto, the estate of the late G. R. Pugsley, of New Brunswick, and the estate of the late Senator MacInnes, of Hamilton, Ont., and is being operated by the C.P.R. for the owners on satisfactory terms. The present owners have given an option to residents of Regina, Sask., and it is understood that they are seeking the charter. Local reports state that the interest behind the application is the Great Northern Ry., U.S.

Quebec Central Ry.—Gross earnings for Nov., $61,832.16; net earnings, $20,702.68 against $55,331.74 gross and $14,427.32 net for Nov., 1904. Net earnings for 11 months ended Nov. 30, $254,488.89 against $236,640.30 for same period, 1904.

Quebec and Lake St. John Ry.—Application will be made at the current session of the Quebec Legislature for an act authorizing the company to subscribe for stock in the Quebec Transport Co., or some other steamship company trading to the port of Quebec; to guarantee the payment of the capital and interest of a sum to be borrowed by the Lake Joseph Hotel Co., and to declare and if necessary, vary the quorum of the bondholders empowered to authorize the issue of £150,000 balance of the prior lien bonds authorized by chaps. 71 and 72, 4th Edward VII, and for other purposes.

Quebec Southern Ry. and South Shore Ry.—Official notice has been given that all claims against these railway companies, whose property has been sold under an order of the Court of Exchequer, have to be filed with the Registrar of the Court or with G. E. Dessaulles, the Receiver, 26 St. Sacrament St., Montreal, before Mar. 1.

Temiscouata Ry.—Gross earnings for Nov., $10,032.49.

Toronto, Hamilton and Buffalo Ry.—Estimated earnings for Dec. $68,298.63 against $56,411.04 for Dec., 1904.

TRADE AND SUPPLY NOTES.

The matter which appears under this heading is compiled, in most cases, from information supplied by the manufacturers of, or dealers in, the articles referred to, and in publishing the same we accept no responsibility. At the same time we wish our readers to distinctly understand that we are not paid for the publication of any of this matter, and that we will not consider any proposition to insert reading matter in our columns for pay or its equivalent. Advertising contracts will not be taken with any condition that accepting them will oblige us to publish reading notices. In other words, our reading columns are not for sale, either to advertisers or others.

The Canadian Fairbanks Co., Montreal, has sent out its calendar for 1906, a feature of which is illustrations of the various special lines manufactured.

The B. Greening Wire Co., Hamilton, Ont., has issued a booklet illustrating the wire bondings for concrete construction, and wire lathing which it manufacturers.

The American Locomotive Co., New York, has issued a booklet dealing with the Walscharet valve gear, which the company is largely using at its several works.

The Hiram L. Piper Co., Montreal, has sent out a calendar, the principal feature of which is a well-executed lithographic reproduction of Moran's seapiece "Solitude."

The Gartshore-Thompson Pipe Foundry Co., Hamilton, Ont., has issued as a calendar for 1906, a reproduction of one of the Dutch scenes painted by W. C. Harston.

F. H. Hopkins & Co. have largely increased their office accommodation in the Imperial Bank Building, Montreal, where they now occupy the eastern half of the upper floor.

The calendar for 1906 issued by F. H. Hopkins & Co., Montreal, contains on each page illustrations of the special lines of railway contractors' and other plant which they handle.

The Canadian General Electric Co. has issued section five of its supply catalogue, giving prices, etc., of its incandescent supplies, and a circular showing prices of miscellaneous material.

W. H. C. Mussen & Co., Railway Contractors, Mining and Municipal Supplies, Montreal, have issued a wall calendar for 1906. The figures are plain and large, easily discernible at a considerable distance.

It is reported that there are over 1,500 Shay geared locomotives in successful operation in all parts of the globe. They are manufactured by the Lima Locomotive and Machine Co., Lima, Ohio, whose plant occupies over 14 acres of land.

M. M. Meehan, Mechanical Expert, Galena Signal Oil Co., who has had charge of the

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work on the G.T.R., has been transferred to the Rock Island Rd, with headquarters at Chicago. He is succeeded on the G.T.R. system by J. Linahen, heretofore road foreman, G.T.R. Northern Division, who will have his headquarters at Montreal.

H.M.S. Dominion, which conveyed the body of the late Hon. R. Prefontaine from Cherbourg to Halifax, is one of the eight battleships of the King Edward VII class, which are the most powerful warships afloat. She is fitted with two triple expansion engines, which develop at full power 18,000 h.p., the steam for which is furnished by Babcock and Wilcox water tube boilers.

Jerry M. Hayes, formerly with the New Haven Car Register Co., and recently with the Frank Ridlon Co., has associated himself with the Sterling-Meaker Co. He is well known to the street railway officers of New England, New York and Pennsylvania. The travelling force of the Sterling-Meaker Co. now consists of G. E. Willis, F. D. Willis, J. M. Yount, formerly Master Mechanic of the North Jersey Street Ry. Co., and J. M. Hayes.

B. M. Jones & Co., Incorporated, have taken over the business of B. M. Jones & Co., Boston and New York. Associated in the management are: B. M. Jones, President; J. A. Warren, of Chicago, Vice-President and General Manager; R. L. Thomas, of New York, Second Vice-President; and W. J. Klein, of Boston, Secretary and Treasurer, all of whom have long been associated with the business. The incorporated company will act as sole representatives in the U.S., Canada and Mexico, of Samuel Osborn & Co., Clyde Steel and Iron Works, Sheffield, Eng., manufacturers of Mushet Steels, including Mushet Special, Mushet High Speed and Titanic Steels, also Mushet High Speed Steel Twist Drills and Cutter Blanks, Clyde Tool Steel and other high grade Tool Steels. They will also act as sole representatives in the U.S., Canada, and Mexico, of Taylor Bros. & Co., Ltd., Clarence Iron Works, Leeds, Eng., manufacturers of Taylor best Yorkshire Iron, for staybolts, axles, piston rods, crank pins, etc.

Following are the officers of the Lake Ontario Navigation Co. for the current year: President, F. Hutchinson; Vice-President, W. Douglas, K.C.; Managing Director, J. Hazlett; Secretary, F. H. Baker. At the annual meeting, held in Toronto, Jan. 20, the reports presented showed that a satisfactory business had been done during the last season of navigation.

The Canadian Starch Co. has been incorporated under the Dominion Companies' Act with a capital of $2,500,000, and offices at Cardinal, Ont., to manufacture starch, glucose, etc., and in connection therewith acquire and operate grain elevators and warehouses, steam and other vessels, docks, wharves, etc. The provisional directors are: G. F. Benson, W. Strachan, C. R. Hosmer, Montreal; J. J. Warren, Toronto; J. Ruddy, Brantford, Ont.

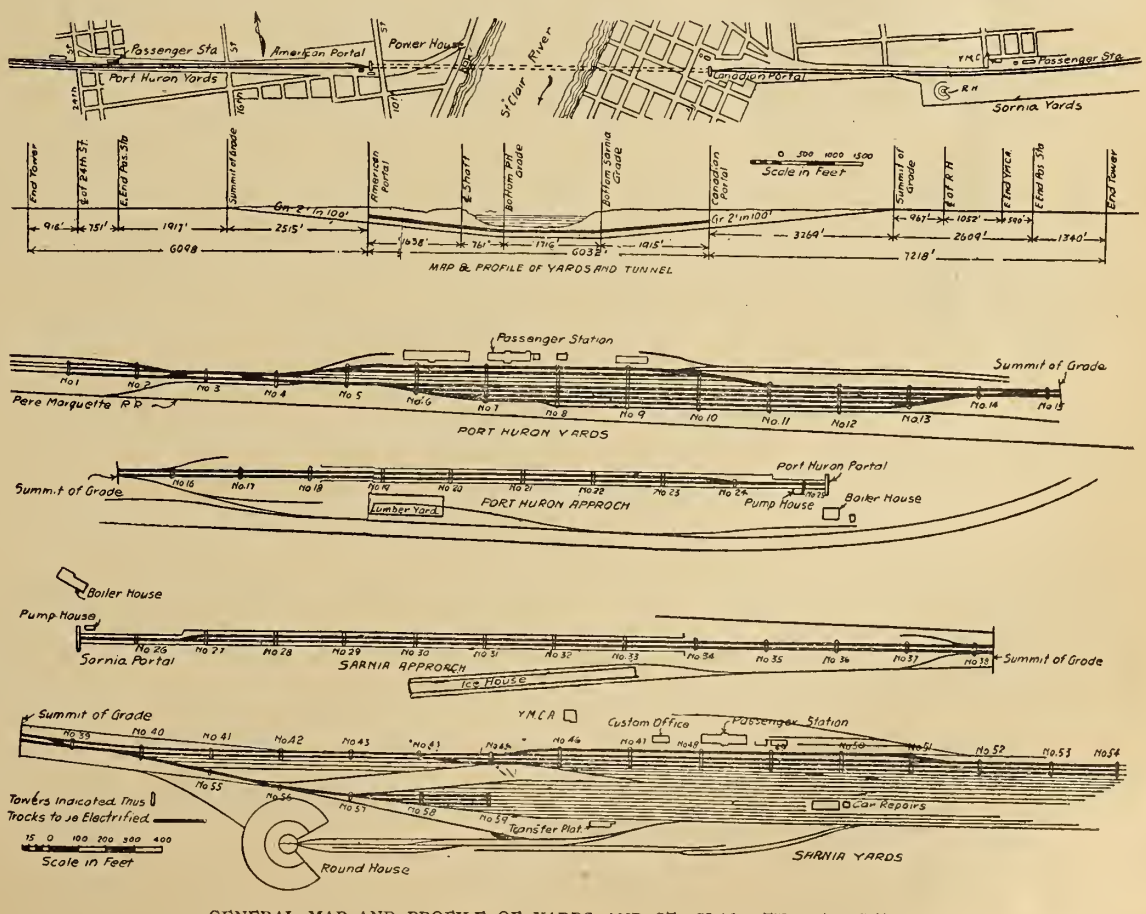
St. Clair Tunnel Electrification.

The single-phase electric locomotive adopted by the St. Clair Tunnel Co. for the operation of the St. Clair tunnel, which connects the Middle and Western divisions of the G.T.R., will weigh approximately 62 tons, and will develop a draw-bar pull of 25,000 lbs. on a 2 per cent. grade at a speed of 10 miles an hour. It is of the rigid frame type with driving axle boxes held in the same frame that contains the draft gear. It will be mounted on three pairs of driving wheels, which will sustain the entire weight, distributed by equalizer bars similar to those used in steam locomotive practice, will have an outside frame supported on semi-elliptical springs, and will be equipped with Westinghouse friction draft gear, MCB automatic couplings, air sanding apparatus, and bumper steps, front and back. The cab will be of sheet steel mounted on a framework of iron which supports both walls and roof. The principal dimensions will be approximately as follows: Length over end sills, 27 ft. 9 in.; rigid wheel base, 12 ft.; width over all, 9½ ft.; height from top of rail to top of cab, 12½ ft.; diameter of driving wheels, 62 in.

The operating apparatus will be arranged along the sides of the cab, leaving a free passage-way 3½ ft. wide the entire length. The cab will be lighted and heated by electricity, arrangement being made to screen the instrument lights while the locomotive is running. Westinghouse combination automatic and straight air and American driver brakes will be used. The air supply will be provided by a two-cylinder motor-driven air compressor having, with a 5 in. stroke and speed of 190 r.p.m., a capacity of 45 cub. ft. of air per minute. Air reservoirs, signal outfits, whistle, bell with pneumatic ringers, automatic pump governor, tools, instruments, gauges, headlights, push poles and other details complete the auxiliary equipment.

A motor will be geared to each axle, giving each unit an aggregate rated capacity of 750 h.p. They will be of the Westinghouse single-phase alternating-current, series wound, compensating type, and of the same general character as the motors selected by the New York, New Haven and Hartford Rd. for the operation of its line between New Haven and New York. Each motor will weigh complete approximately 14,500 lbs., the armature weighing approximately 5,600 lbs. The motor frame will consist of a steel cylinder cast in one piece and enclosed at the end by brackets of the same material, which carry the bearings and oil reservoirs. The suspension noses and safety lugs will form a part of the main casting. Seats for the axle bearings will be cast solid with the frame. All bearings will be of phosphor-bronze lined with babbitt and divided into two parts. They will be of exceptionally large dimensions, will be arranged for oil waste lubrication, and will be provided with large openings on the low pressure side, giving a thorough lubrication to the entire bearing surface. Oil will be fed into the reservoirs through openings separate from the waste pockets and will therefore reach the waste from below and be thoroughly filtered before entering the bearing. The motors will be swung between the locomotive frame and the driving axles by a flexible nose suspension from two hangers supported by a truck transom, and passing through heavy lugs with helical springs above and below the lug. The motors will be held to the axle by means of caps split at an angle of 35 deg. with the perpendicular, so that the greater part of the weight will be borne by solid projections from the motor frame, which will extend over the axle, rather than by the cap bolts. Large openings above and below will provide access to the commutator and brush holders.

Within the cylinder of the motor frame there will be built up a core of soft steel



GENERAL MAP AND PROFILE OF YARDS AND ST. CLAIR TUNNEL, G.T.R.

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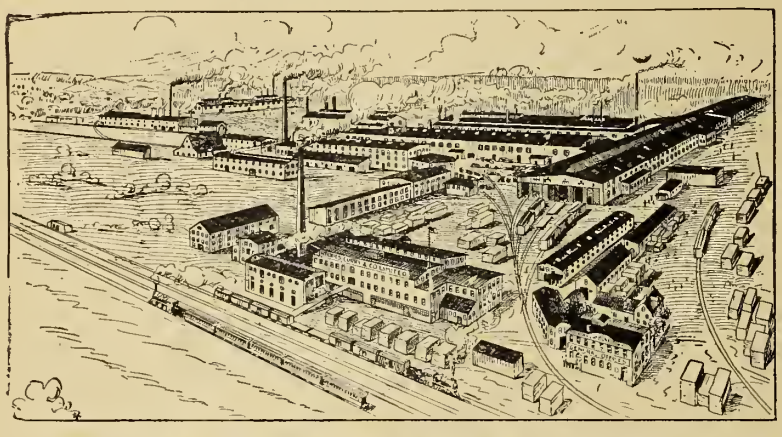

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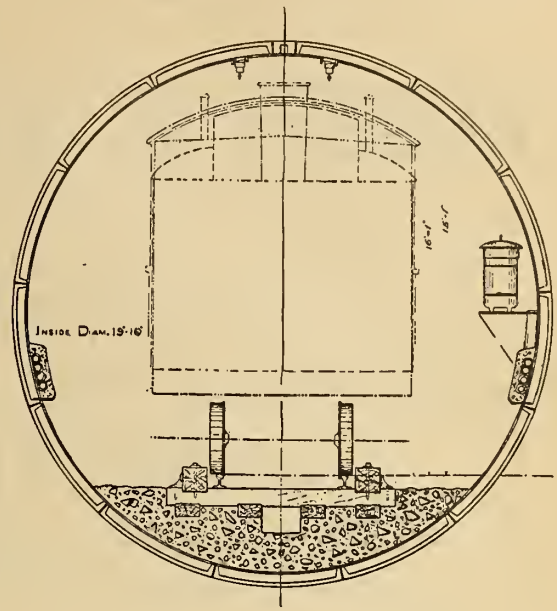
punchings, forming a complete laminated field. The punchings will be dovetailed into the frame and clamped between end rings of cast steel. The field coils will be wound with copper strap insulated between turns and about the coils by mica, and finished by taping and dipping, and will be impregnated in the best grade of varnishes, providing a sealed coil which can withstand the most severe internal heat and be practically indestructible under the usual conditions of heavy railway service. In addition to the main coils the field will carry a neutralizing winding consisting of copper bars placed in slots in the pole faces and joined at the ends by connectors of copper strap, so as to form one continuous winding, which will be connected in series with the main field winding and with the armature circuit. The magnetizing effect of this auxiliary winding will be directly opposite to and neutralizes that of the armature winding, thus eliminating the effect of armature re-action and improving commutation and power factor. The main coils will be easily removable without disturbing the auxiliary winding. The armature cores will be formed of slotted soft steel punchings built up upon a spider and keyed in place. The spider will be forced upon the shaft with heavy pressure and secured by a steel key. Coils of copper strap will be embedded in the slots and joined to form a closed multi-circuit winding which will be cross-connected, like the multi-circuit winding of a direct-current generator. The basis of the insulation will be mica. A preventive winding will be connected between the commutator and the main coils, introducing a preventive action which will be effective only when the coil is passing under the brush.

During operation a forced circulation of air supplied by motor-driven blowers will enter at the rear, distribute itself thoroughly throughout the motor and escape through the perforated cover over the commutator. This system of forced ventilation of both motors and auxiliary apparatus forms one of the most interesting innovations in electric railway construction. It secures a maximum output from a given weight of material, and a high ratio of continuous output to the one-hour motor rating common in railway practice. It also provides effective ventilation while the locomotive is not in operation as the blower may be driven while the locomotive is standing at the station or at the end of the line. Motors ventilated in this manner are enclosed and are thereby protected form internal damage by dirt and water and from mechanical injury. These motors are wound for 240 volts and 25 cycles per second, and have a nominal rating of 250 h.p. each, on the basis of usual electric railway practice.

The essential elements of the control equipment will include the collecting devices, the auto-transformers, the unit switches, the preventive coils, the reverser and master controllers. A multi-unit system of control will be provided with pneumatically operated switches and circuit breakers, low voltage control circuit, and other characteristics standard in Westinghouse practice. Any unit will be controllable from either end, and two or more units may be coupled together and operated from a single cab and by a single crew. The tractive effort which can be readily applied to a single train will therefore be limited only by the number of units available, and the hauling power will be limited only by the mechanical strength of the coupling between locomotive and cars. A control circuit will be carried from one unit to the next by means of connecting sockets and jumpers in the usual manner. Speed control of the driving motors will be secured by variation of the voltage at the motors obtained by means of taps taken from the winding of the auto-transformer, which will receive current from the trolley at 3,000 volts and reduce it to 240 volts or lower, according to the tap employed. These taps will be connected to unit switches from which current will be led through the preventive coils to the motors. Four unit switches will serve to reverse the field of each motor.

The unit switches will be of standard Westinghouse design and will, in effect, be pneumatically operated circuit breakers of great power and reliability. The mechanism will be such that a rolling and sliding contact will be obtained when the switch closes and opens. The arc will be broken at the taps, leaving the contact surfaces smooth and unscarred. Each unit will have a magnetic blow-out coil with laminated core. The switch cylinders will be controlled by magnetically operated valves, current for which will be obtained from a 50-volt tap from the auto-transformer. The sequence of operation will be governed by the master controller in conjunction with a system of inter-locks which will prevent short circuit of the steps between taps from the auto-transformer or improper operation of the controlling mechanism. At any running point four controlling switches will be closed. Through the preventive coils approximately the same amount of current will be drawn from each of these switches and the leads to which they are connected. To change to a higher voltage on the motors, the master controller is moved to the next notch, opening the last switch of the group that is closed and closing the switch next higher, with the result that the motor voltage is shifted up one step. By this arrangement the voltage at the motor will be completely under control of the locomotive driver and may be varied up and down at will without opening more than one-quarter of the load current. Small switches in the circuits to the magnets of the reversing switches will enable any motor or combination of motors to be cut out without disturbing the others. Every one of the 17 controlling connections will provide an efficient running point. This number will be ample to prevent any slipping of the driving wheels due to increase of current from one notch to another. Whether empty or heavily loaded, operated in single or multiple units, torque and draw-bar pull may be gradually applied and the locomotive started without jar.



SECTION OF ST. CLAIR TUNNEL.

Each locomotive unit will be equipped with a pneumatically operated pantagraph trolley to collect current from the overhead lines outside the tunnel and throughout the yards. The proportions of the pantagraph will be such that, when extended, it will make contact with the trolley wire 22 ft. above the rail, and, when closed down, the contact shoe will not extend more than 18 in. above the roof of the locomotive. The pantagraph will have a broad base and will be constructed of light and stiff material. A no. 0000 grooved overhead trolley wire will be suspended from a single Œ inch, high strength, double galvanized, steel strand, messenger cable by hangers of varying length in such a manner that the trolley wire will be approximately horizontal. The messenger cable will be swung from structural iron bridges located throughout the yards, and of suitable length to span the proper number of tracks. There will also be a small section of track equipped with a trolley line swung by catenary suspension from bracket arms supported on lattice-work poles.

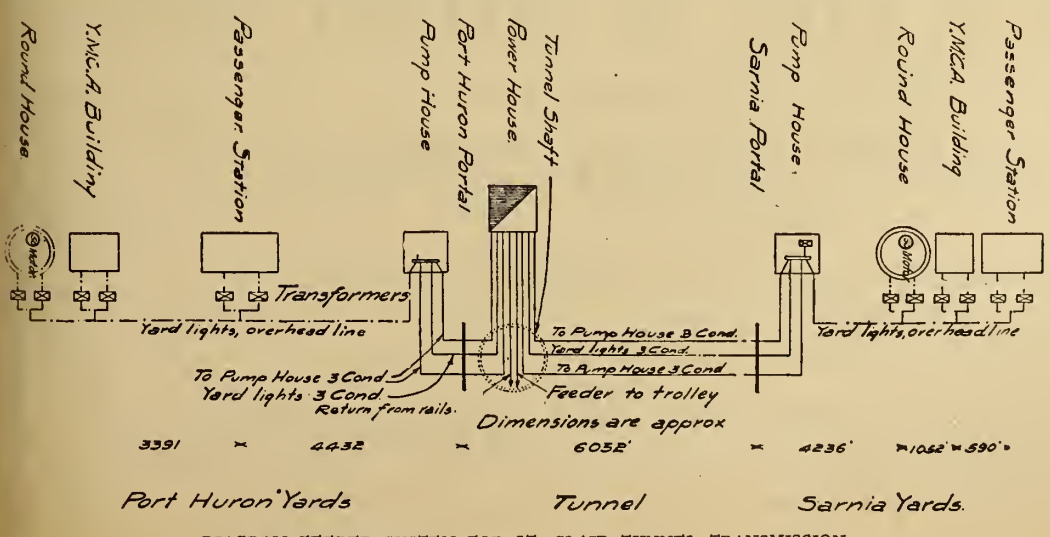


DIAGRAM FEEDER SYSTEM FOR ST. CLAIR TUNNEL TRANSMISSION.

THE
ROBERT MITCHELL CO.
MONTREAL LIMITED
MANUFACTURERS OF
RAILWAY AND STREET CAR FITTINGS

For the operation of the electric locomotives a complete power plant will be installed by the St. Clair Tunnel Co., including two 1,250 kw., 3,300 volts, 3-phase, 25 cycle, 1,500 r.p.m., rotating field, Westinghouse steam turbine units with the necessary complement of switchboards, exciters, lightning protective apparatus, etc. This station will also supply current to light the buildings, yards and tunnel, to operate motor-driven centrifugal and triplex pumps which drain the tunnel and approaches and operate the sewage system, to run motors in the round-houses and for other purposes.

The new equipment will handle that portion of the G.T.R. which connects the divisions terminating at Sarnia, Ont., and Port Huron, Mich., on opposite sides of the St. Clair river. The tunnel proper is 6,032 ft. long, and the line to be electrically operated measures 19,348 ft. from terminal to terminal. A pair of the new units will be capable of hauling a 1,000 ton train through the tunnel without division. Mechanical consideration limit the advisable weight of train in the tunnel to these figures. Heavier

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trains can be divided or sent through together with locomotives in front and behind. The service requires that each unit shall take a train of 500 tons through the tunnel block from summit to summit in 15 minutes, under the following conditions: It will be coupled to the train on a level track 1,200 ft. from the summit, and must accelerate it up to a speed of 12 miles an hour in two minutes, at the end of which time it will have reached the summit of the gradient leading down into the tunnel. It will then run down a gradient of 2 per cent. to the level track in the tunnel at a speed not exceeding 25 miles an hour, continue on the practically level stretch under the river, and then draw the train up a 2 per cent gradient at the rate of 10 miles an hour to the level track beyond the tunnel approach on the other side. It must then gradually accelerate the train until a speed of 18 miles an hour is reached. Each unit must be capable of exerting a tractive effort of 25,000 lbs. for a period of 5 minutes in addition to the energy required to accelerate the train at the starting point and to run with it into the terminal yard, from which point it must immediately run back to a position 1,200 ft. from the summit, couple to another train and be ready to start through the tunnel in the opposite direction. It must, therefore, make a run of the character described every 30 minutes.

Six of these locomotives are to be furnished by the Westinghouse Co. It is expected that the electric equipment will greatly relieve the traffic congestion now existing, and due in a large measure to the necessity of dividing trains at the terminal points, and to greatly simplify the operation of the road. Its opening will mark the progress of electrical methods in the railway field under conditions which seem peculiarly fitted to demonstrate its practical advantages in heavy service. That the single-phase system has been adopted for so important an undertaking makes evident the recognition accorded the alternating current by railway engineers, and indicates that its claims have been verified by the service already rendered.

The work of installation will be conducted under the supervision of B. J. Arnold, of Chicago, Consulting Engineer for the Tunnel Company, by whom the plans and specifications were prepared. The contract for the entire equipment was placed through the Canadian Westinghouse Co., Limited, of Hamilton, Ont. A large part of the apparatus will be constructed in its Hamilton works, and various Westinghouse interests will co-operate to complete the work.

The cuts illustrating this article are reproduced from the Railway and Engineering Review.

The Canadian Dredge and Construction Co. has been incorporated under the Ontario Companies' Act, with a capital of $150,000, and offices at Midland, Ont., to construct, repair, sell, lease, or otherwise dispose of dredges, derricks, vessels, lighters, tugs and barges; to construct wharves, docks, dry docks, bridges, piers and other public works. The provisional directors are: Jas. Playfair, D. L. White, D. S. Pratt, P. Potvin, Midland; W. J. Sheppard, Waubashene, Ont.

The question of lumber rates from the Ottawa Valley to New York has recently been under the supervision of the Canadian Freight Association. The rate from Ottawa to New York by rail to Albany, N.Y., thence by barge to New York, has been $3 per 1,000 ft. It was proposed to substitute for this a rate of 10½ cents per 100 lbs. It is said that this proposal has been abandoned and the rate will continue to be per 1,000 ft. For the present, at least, the old rate remains in effect, and a sub-committee has been appointed to consider the whole question.

MAINLY ABOUT PEOPLE.

Geo. Hall, chief clerk to the General Superintendent C.P.R., North Bay, Ont., died there Jan. 18.

Thos. Foote, chief accountant I.C.R. up to 1882, died at Baltimore, Md., recently of paralysis.

Mrs. Osler, wife of E. F. Osler, of the Canadian Locomotive Co., Kingston, Ont., died there Jan. 27.

Sir Wm. and Lady Van Horne were at Rideau Hall, Ottawa, Jan. 6, guests of the Governor-General.

The Standing Committee on Railways of the Manitoba Legislature has elected Mr. Ruddall as its chairman.

Mrs. Long, wife of R. W. Long, G.T.R. Division Freight Agent, Stratford, Ont., died at Buffalo, N.Y., Jan. 3.

R. Marpole, General Superintendent C.P.R., Vancouver, B.C., and Mrs. Marpole, are spending some time at Honolulu.

A. Davey, of Dawson, Yukon Territory, solicitor for the White Pass and Yukon Ry., died in Ottawa recently, aged 30.

H. R. Emmerson, son of the Minister of Railways and Canals, was married at Parrsboro', N.S., Dec. 28, to Miss B. Price.

Lieut.-Col. W. P. Anderson, Chief Engineer, Department of Marine, has been elected Chairman Ottawa Public School Board.

G. M. Kinghorn, who had been Secretary Montreal Transportation Co. since its formation, died at Montreal, Jan. 25, aged 81.

W. Gormaly, who retired from the Superintendency of Toronto Union Station, Feb. 1, is seriously ill and confined to his house.

C. H. Hines, electrical engineer C.P.R. during the construction of the Angus shops, at Montreal, died in South America recently.

T. C. Burpee, engineer of Maintenance of Way I.C.R., Moncton, N.B., was presented with a china cabinet by his office staff, Dec. 25.

A. R. Trites, railway contractor, Salisbury, N.B., has purchased the residence of the late Oliver Jones, Moncton, N.B., at a cost of $13,000.

H. H. Adams, Superintendent Michigan Central Rd., St. Thomas, Ont., was married at Detroit, Mich., recently, to Miss J. G. Kingsberry.

J. E. Quick, General Baggage Agent G.T.R., sent his friends a unique New Year's card, an imitation of a baggage check, loaded with good wishes.

The proposed presentation to Lord Strathcona by Canadians in London, Eng., will take the form of a portrait of himself painted by J. C. Forbes.

J. G. Scott, General Manager Quebec and Lake St. John Ry., Quebec, has been elected a Vice-President of the Lake St. John Colonization Society.

E. N. Bender, General Purchasing Agent C.P.R., returned to his office in Montreal, Jan. 26, much improved in health, after a trip to the south.

W. C. Hunter, Manager New Brunswick Coal and Ry. Co., Norton, N.B., was presented with a gold watch by the employes for the New Year.

Mrs. E. Reynolds, who died at Quebec, Jan. 9, aged 82, was mother of E. Reynolds, Superintendent Quebec section Eastern Division, C.P.R.

Lady Shaughnessy, wife of the President of the C.P.R., and Miss Shaughnessy, will leave Montreal early in February for Sicily and other Mediterranean points.

Denis Murphy, one of the Commissioners for the Temiskaming and Northern Ontario Ry., has been re-elected President of the Ottawa Board of Trade.

H. Carry, C.E., now of Vancouver, B.C., and his bride, formerly Mrs. Jas. Reid, are spending some months on the European continent visiting Italy and Egypt.

H. Disher, train despatcher Toronto, Hamilton and Buffalo Ry., Hamilton, Ont., got his foot crushed between an incoming train and the platform recently.

E. F. Fauquier, railway contractor, Ottawa, was married there, Dec. 27, to Miss E. W. White, daughter of the Comptroller North-West Mounted Police.

W. B. Russel, formerly Chief Engineer Temiskaming and Northern Ontario Ry., is a provisional director of the Intensified Light and Super-Soda Co., Toronto.

Senator Domville, C. N. Armstrong, of Montreal, and A. N. Shepler, of New York, left for England early in Jan., in the interest of the Central Ry. of Canada.

D'Arcy Tate, Montreal, Assistant Solicitor G.T. Pacific Ry., Montreal, has been appointed a commissioner for taking affidavits in Quebec, for use in Ontario.

J. E. McMullen, who has been appointed to take charge of the C.P.R. legal department at Vancouver, B.C., was married at Toronto recently to Miss N. G. Temple.

W. E. Dowle, heretofore Division Freight Agent, Delaware, Lackawanna and Western Rd., at Buffalo, N.Y., has been appointed Assistant General Freight Agent.

A reference to Archer Baker in our Nov. issue described him by his old title of European Traffic Manager, C.P.R., instead of his present one of European Manager.

C. Wurtele has resigned his position as General Eastern Canadian Agent Great Northern Ry. (U.S.) to take the management of Cawthra Mulock's estate at Toronto.

Miss Jessie Harper, daughter of W. H. Harper, C.P.R. ticket agent Chatham, Ont., was married Jan. 16, to F. B. Lyle, Manager Royal Bank of Canada, New Westminster, B.C.

H. G. McMicken, European Traffic Agent, Great Northern Ry., U.S.A., sent from London to his Canadian friends an original Christmas and New Year's card with accompanying verses:

D. D. Mann, Vice-President Canadian Northern Ry., Toronto, has purchased the Glenburne Lodge and other adjoining property on the Medway River, near Liverpool, N.S.

E. Parker was presented with a gold watch, chain and locket by the employes of the G.T.R., Point St. Charles, Que., on giving up his position as locomotive foreman there recently.

The Quebec City Council, Jan. 9, accepted the resignation of S. N. Parent, Chairman National Transcontinental Ry. Commission, as Mayor of the city, which office he has filled for some years.

A. M. Nanton, of Osler, Hammond and Nanton, Winnipeg, and Managing Director of the Alberta Ry. and Irrigation Co., has gone to England with Mrs. Nanton, expecting to return early in April.

W. Fraser, formerly chief clerk G.T.R. Roadmaster's office, Ottawa, was presented with a purse of gold by the employes of the division on leaving recently to take up his residence in Goderich, Ont.

J. Strathern, civil engineer and land surveyor, who entered the G.T.R. service in the latter capacity in 1868, and subsequently was for many years baggage master at Island Pond, Vt., died there Dec. 28.

The engagement has been announced of H. Osler, Winnipeg, son of E. B. Osler, M.P., director C.P.R., and Miss K. Harty, only

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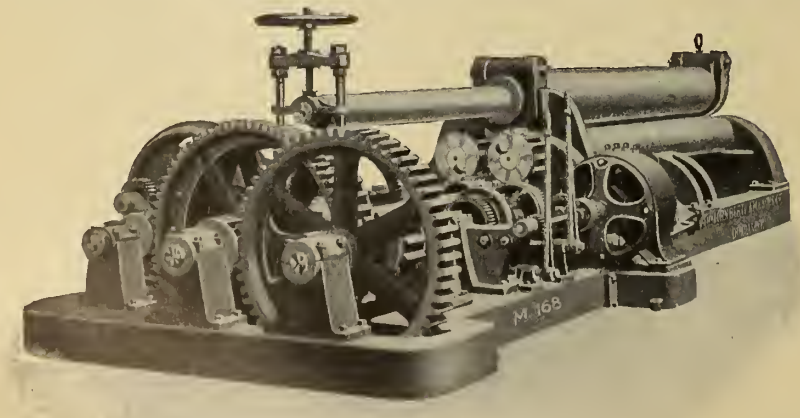

MOTOR DRIVEN

These machines are built in four sizes for plates from 12 feet wide, 1¼ inches thick, to 16 feet wide and 1 inch thick. The rolls are arranged in pyramid form and driven by a motor with reversing mechanism. The top roll is raised and lowered by an independent motor. The rolls and hoisting mechanism are steel throughout, and the machine has strength and power to bend plate full width between the housings to a complete circle in from one to three passes.

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The John Bertram & Sons Co., Limited, Dundas, Ontario, Can.

daughter of W. Harty, President Canadian Locomotive Co., Kingston, Ont.

H. Foster Chaffee, Western Passenger Agent, Richelieu and Ontario Navigation Co., left Toronto Jan. 19 on a business trip to California and other Pacific Coast points, expecting to return early in Feb.

Lord Strathcona, High Commissioner for Canada in Great Britain, and Governor of the Hudson's Bay Co., has returned to London, Eng., after a short visit to Canada. This made his 150th trans-Atlantic voyage.

The rehearing of the Hopper-Dunsmuir will suit at Victoria, B.C., has resulted in a verdict upholding the will of the late Alex. Dunsmuir, put forward by Jas. Dunsmuir, ex-President Esquimalt and Nanaimo Ry.

Jas. G. MacDonald, railway contractor, died at his home, Cloverdale, near Moncton, N.B., recently, aged 64. During the last three or four years he was engaged in partnership with David Clark, on the Halifax and South-Western Ry.

J. H. Walsh, General Manager, Quebec Central Ry., has been presented with a gold-headed cane and an address by the Sherbrooke Council, Knights of Columbus, Sherbrooke, Que., on being elected Grand Knight for the fourth year in succession.

W. D. Matthews, director C.P.R., and President St. Lawrence and Chicago Steam Navigation Co., Toronto, will be absent for several months cruising in the Mediterranean, in company with Jas. Ross, Montreal, and party, on Mr. Ross' yacht Sheelah.

The Cleveland, Cincinnati, Chicago, and St. Louis Ry. office in Buffalo, N.Y., has been closed and C. S. Blackman, heretofore General Eastern Passenger Agent, has been appointed Travelling Passenger Agent Lake Shore and Michigan Southern Ry., with headquarters at Buffalo.

W. B. Dawson, D.Sc., who is in charge of the Tidal and Current Survey branch of the Department of Marine, contributed a paper on Tide Levels and Datum Planes on the Pacific Coast of Canada, at the annual meeting of the Canadian Society of Engineers, held in Toronto, Jan. 30.

McIntosh Bros., railway contractors, Milwaukee, Wis., the members of which firm are natives of Cornwall tp., Stormont county, Ont., have been awarded the contract to build 1,500 miles of railway for the Chicago, Milwaukee and St. Paul Ry., from Evarts, S.D., to Seattle, Wash.

C. W. Spencer, who recently resigned his offices as Vice-President and General Manager Kingston and Pembroke Ry., to become Manager Mackenzie, Mann & Co.'s Eastern Lines, was presented with a vase and cut glass punch bowl with silver ladle, by the officers and employes at Kingston, Ont., Jan. 25.

F. Shaw, a G.T.R. conductor on the Montreal-Brockville run, and at one time Chairman of the General Grievance Committee of the Order of Railway Conductors, and the Brotherhood of Railway Trainmen, died at Montreal, Jan. 24. During the construction of the St. Clair tunnel he was one of the superintendents of construction.

Mrs. Thos. Tait, wife of the Chairman of the Victorian, Australia, State Railway Commissioners, expects to leave Melbourne in April with her daughter and to spend some time with her parents, G. R. R. and Mrs. Cockburn, in Toronto, after which she will go to Europe. Mr. Tait may pay a visit to Canada towards the end of this year or early in 1907.

C. E. Benjamin, who has been appointed General Agent for the C.P.R. Atlantic steamships at Chicago, Ill., has been connected with the company's service for many years. He was in the office of J. F. Lee, when the latter represented the C.P.R. at Chicago, and latterly has been Travelling Passenger Agent at St. Louis, Mo. He is President for the current year of the Travelling Passenger Agents' Association of America.

Capt. P. M. Campbell, of the str. City of Windsor, Collingwood, Ont., has entered action against S. H. Lindsay, administrator of the estate of the late C. Cameron, of Collingwood; T. Long and J. M. Hopkins, executors of the late J. J. Long, and T. Long as the sole surviving partner of T. Long & Bro., for an account of monies received by any of them on plaintiff's behalf, and the investment thereof and for payment of monies to which he may be entitled.

J. A. Goodearle, who has been appointed General Manager, Turbine Steamship Co.,

THE LATE C. F. GILDERSLEEVE, OF KINGSTON.

Hamilton, Ont., was born Kingston, Ont., July 4, 1867, and entered transportation service 1883, his record being: 1883 to 1889, junior clerk, rising to acting cashier and accountant, G.T.R. Freight Department, Kingston; 1889 to Dec. 31, 1905, agent for Thousand Island and St. Lawrence Steamboat Co., and City Passenger and Ticket Agent, New York Central and Hudson River Rd., Kingston, Ont.

E. O. Grundy, who has been appointed General Freight and Passenger Agent, Quebec Central Ry., is a son of the Vice-President of the line, was born at Swansea, Glamorganshire, Wales, May 10, 1872, and entered railway service in 1887, his record being:—Mar., 1887 to 1891, clerk in office of Traffic Manager, Taff Vale Ry., Cardiff, Wales; 1891 to 1892, in General Manager's office, same railway; June, 1892, to Nov., 1895, in accounting department Quebec Central Ry., Sherbrooke, Que.; Nov., 1895, to Dec. 31, 1905, chief clerk to General Freight and Passenger Agent, same line.

T. R. Merritt, President Imperial Bank of Canada, died at his residence, St. Catharines, Ont., Jan. 11, aged 82. He was the fourth son of the late Hon. W. H. Merritt, builder of the Welland Canal, and in early life was engaged in the milling and shipping business, having a number of vessels trading on the Upper Lakes, as well as on Lake Ontario, to the Maritime Provinces and the West Indies. One of the lines of boats he operated was from St. Catharines to Brantford via the Welland Canal and Grand River. He was subsequently interested in the Welland Ry., and was General Manager from 1860 to 1884, prior to its becoming part of the G.T.R.

The funeral of Hon. R. Prefontaine, Minister of Marine, who died suddenly in Paris, France, Dec. 24, took place at Montreal. A funeral service was held in the Madeleine, Paris, the body being afterwards conveyed to Cherbourg, where the British battleship Dominion was in waiting to carry it to Canada. The Dominion sailed Jan. 12, and reached Halifax, N.S., Jan. 22. The coffin was conveyed ashore with naval and military honors, and placed in a special train, upon which members of the Government and a number of public and private mourners were taken to Montreal, where the funeral ceremonies were concluded, Jan. 25.

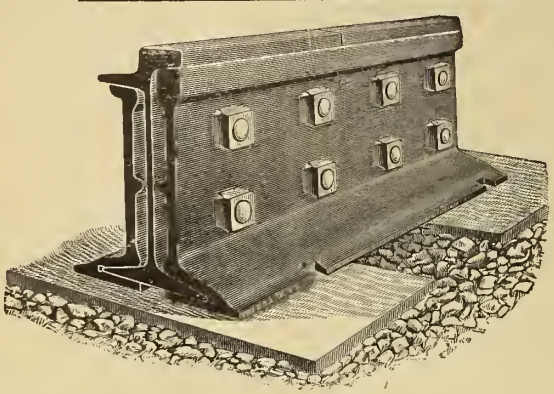
W. G. Annable, who has recently been appointed General Baggage Agent, C.P.R., was born at Ottawa, Mar. 3, 1875, and entered railway service 1891, since which his record has been:—1891 to Jan., 1901, starting as junior clerk and rising to chief clerk, C.P.R., city passenger office, Ottawa; Jan., 1901, to Nov., 1905, in General Passenger Department, Montreal, having charge of the steamship reservations on the Pacific for through passengers from Europe, as well as those on the continent, also on the Atlantic for through passengers from the Orient; also, the Chinese business in detail for the company, the recording of such passengers through Canada in bond to other countries.

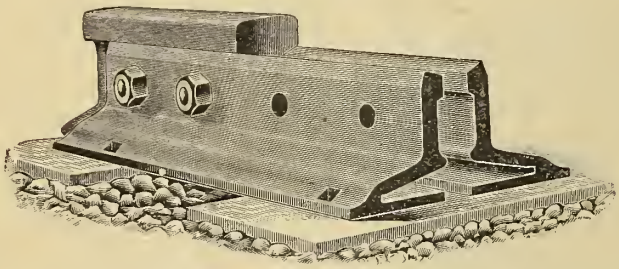
T. C. Burgess, commercial agent, G.T.R., at Minneapolis, Minn., who has recently been also appointed agent Canada Atlantic Transit Co., was born in New York city, Oct. 2, 1853, and entered transportation service 1871, his record being:—Dec., 1871, to Aug., 1872, clerk, G.T.R., Portland, Me.; Aug., 1872, to Oct., 1874, clerk, same road, Mechanics Falls, Me.; Oct., 1874, to June, 1882, clerk and agent, same road, Danville Jct., Me.; June, 1882, to April, 1883, agent Great Eastern Line, Portland, Me.; April, 1883, to May, 1892, agent Great Eastern Line, Minneapolis, Minn.; May, 1892, to date, commercial agent Chicago and Grand Trunk Ry., subsequently G.T.R. system, Minneapolis, Minn.

P. E. Thian, who has been appointed Chief Engineer Brandon, Saskatchewan and Hudson's Bay Ry., is a native of the U.S., born in 1862, and graduating from Georgetown University 1881, beginning his railroad service the same year on the Denver and Rio Grande Rd. From 1882 to 1886 he was engaged on C.P.R. construction work, returning in the latter year to the U.S., where he remained in railway service until 1894. After acting as City Engineer at Everett, Wash., until 1895, he went in for mining work, became associated with the U.S. Geological Service, returning to railway work in 1899 in the U.S. In 1901 he was engaged on location surveys for the Algoma Central and Hudson Bay Ry., and after some time in Mexico he joined the engineering staff of the Great Northern Ry. (U.S.), in 1904.

L. H. Wheaton, who has been appointed Chief Engineer Halifax and Southwestern Ry., Bridgewater, N.S., was born at Sackville,

Railroad Essentials.





The day has passed when men of finance are willing to place their money into bad material in railroad construction only to be compelled to replace it by renewals or reconstruction after very little use. Many of the best and most successful steam and electric railroads use the rail joints of the Continuous patent type for standard track work, insulated joints, step joints, and electric bonding joints for the reason that experience has proven it to be the best appliance of its kind ever put upon the market, as evidenced by the fact that it is used in all parts of the world on over 20,000 miles of track.

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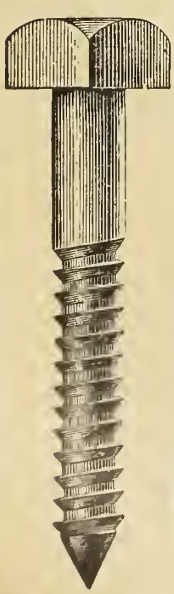

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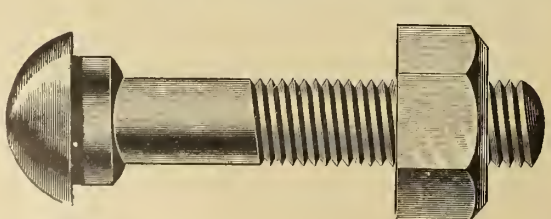

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N.B., Oct. 5, 1868, and entered transportation service in 1885, his record being:—1885 to June, 1890, successively chainman, rodman, instrument man, resident engineer, and Division Engineer, on maintenance work, Intercolonial Ry., and on location and construction of branch lines for the I.C.R., as well as being on survey work for some private companies; June, 1890, to Nov., 1890, Chief Engineer in charge of construction Phillips and Rangeley Ry., a subsidiary of the Boston and Maine Rd.; Nov., 1890, Superintendent as well as Chief Engineer, remaining in charge of operation and maintenance until Aug., 1892; Nov., 1893, to June, 1897, Chief Engineer in charge of construction Coast Ry. of Nova Scotia, (now Yarmouth Division) Halifax and South-western Ry.; June, 1897, to June, 1901, General Superintendent and Chief Engineer, same railroad, in charge of operation, maintenance and new construction; Jan., 1901, to Aug., 1901, engaged in special engineering work for the Nova Scotia Government, reporting on proposed and existing railways; Aug., 1901, to Nov. 18, 1906, successively locating engineer, and Division Engineer of Construction, Halifax and South-western Ry.

C. F. Gildersleeve, formerly President of the Dominion Marine Association, and for a number of years General Manager Richelieu and Ontario Navigation Co., died at Kingston, Ont., Jan. 18, aged 73. He was a son of Henry Gildersleeve, who went to Kingston in 1816 to assist in building the Frontenac, the first steamboat launched on Lake Ontario. He was educated at Upper Canada College, and was called to the bar 1859. In 1864 on the death of an elder brother he left the legal profession to take the management of the steamboat business established by his father in 1817. In 1893 the Lake Ontario and Bay of Quinte Steamboat Co. was formed to take over the Gildersleeve steamers trading on the lake, and he was appointed first manager. In the following year he was appointed General Manager Richelieu and Ontario Navigation Co., and initiated a policy of development resulting in the construction of the large steamers Kingston, Toronto and Montreal. He retired from this position in 1904, returning to Kingston, where he devoted his time to the interests of the Lake Ontario and Bay of Quinte Steamboat Co., of which he was President, and he also became General Manager, succeeding his son, H. H. Gildersleeve, on the latter's appointment as General Manager Northern Navigation Co. of Ontario. He was the principal founder of and first President of the Dominion Marine Association, and was also active in the promotion of the Kingston and Pembroke Ry., and was for some years its President. In public affairs he served as alderman for Kingston for 22 years, and as Mayor in 1879; but was defeated in 1883 in a contest to represent the city in the Ontario Legislature. A resolution of sympathy with the family upon the death of Mr. Gildersleeve was passed by the Niagara Frontier Rate Committee, which was in session at Toronto, Jan. 18.

Wm. Tyndale Jennings, whose portrait appears on the first page of this issue, was born in Toronto, May 19, 1846. He was educated at the Model Grammar School and Upper Canada College, commencing his professional career in 1869 in the Department of Public Works in the then newly formed Province of Ontario. He entered railway service in 1870, and served for five years on reconnaissance surveys, location and construction, and as Resident Engineer, Great Western Ry., during which time he made a survey of the Detroit River from Lake St. Clair to below Sandwich to determine a site for a bridge. In 1875 he was appointed engineer in charge of surveys for the C.P.R. line in B.C., under Sir Sandford Fleming, locating the line through the canyons from Boston Bar to Harrison River, and a portion of the line along Kamloops Lake. In 1879 he was appointed District Engineer in charge of construction of Section B., C.P.R., between Lake of the Woods and Eagle River, Ont. On the completion of this work he was appointed Superintending Engineer in B.C., under C. Schrieber, Chief Engineer; he subsequently became Chief Engineer for the Onderdonk Construction Co., by which a large mileage of the C.P.R. in B.C. was constructed; and Consulting Engineer for the C.P.R. over the section from the coast to the summit of the Gold Ranges, about 350 miles. On the completion of these undertakings he was engineer C.P.R., successively at London and Toronto, and while in that position reconnoitred for and located a number of branch lines, of which the Ontario and Quebec Ry. extension from Woodstock to Detroit, and the Wingham branch, were completed, as well as the Toronto Harbor front improvement, the Esplanade and Don branch. He also made surveys for the Toronto and Sudbury branch. During 1890 and 1891 he was City Engineer of Toronto, during which years the King Street subway was constructed, and the specifications for the present contract with the Toronto Ry. were prepared. Previous to resigning the position of engineer he had declined the Council's offer to take over the managership of the street railway as a municipal concern. Since 1891 he has practised as a consulting engineer in Toronto, and in that capacity located and constructed the Niagara Falls Park and River Ry., from Chippewa to Queenston, Ont., including the first electro-hydraulic power plant constructed on the Canadian side of the Niagara River. He has also acted as Chief Engineer British Columbia Southern Ry., a section of which has been constructed by the C.P.R.; as engineer appointed by the Committee of Privileges and Elections of the House of Commons to look into and report on the letting of the contracts and other works about the Louise docks and basin, Quebec; the dry docks at Levis, Quebec and Esquimalt; in charge of surveys for Dominion Government to report upon the practicability of the construction of a railway to the Yukon Territory from the sea, via the Stikeen River and Telegraph Creek; and latterly he has been acting for the Toronto and Niagara Power Co., and the more or less closely associated enterprises the Toronto and Hamilton Ry., and the Niagara, St. Catharines and Toronto Ry. He was one of the originators of the Canadian Society of Civil Engineers, and has served five terms on the Council, four terms as Vice-President and was President in 1899. He is also a member of the Institute of Civil Engineers of Great Britain; of the American Society of Civil Engineers and of the Canadian Institute; and is Chairman of the Engineering Board of Examiners for Toronto University.

RAILWAY APPOINTMENTS.

Algoma Central and Hudson Bay Ry.—J. T. Terry, jr., has been appointed Secretary and Treasurer.

Canadian Pacific Ry.—C. Kyle, heretofore Master Mechanic, North Bay, Ont., has been appointed Master Mechanic Eastern Division, succeeding J. B. Elliott, promoted. Office, Montreal.

A. C. Harshaw, heretofore conductor running between Toronto and Detroit, has been appointed Trainmaster in charge of construction on the Toronto-Sudbury branch, now under construction.

G. T. Fulton, heretofore general foreman Carleton Junction shops, has been appointed Master Mechanic, Lake Superior Division, North Bay, succeeding C. Kyle, promoted.

D. C. Macdonald has been appointed Soliciting Freight Agent, Winnipeg, succeeding E. J. Travers, resigned.

R. E. Larmour, heretofore Freight Claims Agent, Central Division, Winnipeg, has been appointed city freight agent there, succeeding H. J. Sullivan, resigned to enter Canadian Northern Ry. service.

F. G. H. Bowker has been appointed Superintendent of the Company's Western hotels, with headquarters at Field, B.C. He will have charge of all the company's hotels west of Winnipeg.

J. E. McMullen, heretofore Assistant Solicitor, at Montreal, has been appointed to take charge of the company's law department, which has just been organized for the Province of British Columbia at Vancouver.

C. E. Benjamin, heretofore Travelling Passenger Agent at St. Louis, Mo., has been appointed General Agent Passenger Department, Atlantic service. Office, 232 South Clark Street, Chicago, Ill.

Central Vermont Ry.—Stewart Wright, at one time in the G.T.R. service as locomotive foreman, is reported to have been appointed Locomotive Foreman, C.V. Ry.

Grand Trunk Ry.—J. A. Cheer, General Roadmaster, having been granted an extended leave of absence, T. H. Horner has been appointed Acting General Roadmaster. Office, Allandale, Ont.

W. Quilter has been appointed Locomotive Foreman at Allandale, Ont., succeeding H. A. Amy, resigned.

Great Northern Ry. (U.S.A.)—Northern Steamship Co.—The offices of W. M. Lowrie, General Eastern Passenger Agent, G.N.R., and General Passenger Agent, N.S. Co., have been removed from Buffalo, N.Y., to 379 Broadway, New York City.

H. E. Watkins, Travelling Passenger Agent, Buffalo, N.Y., has been appointed General Eastern Canadian Agent, succeeding C. Wurtele, resigned.

Halifax and Southwestern Ry.—G. P. MacLaren has been appointed Division Engineer, succeeding L. H. Wheaton, who was recently appointed Chief Engineer.

Intercolonial Ry.—G. Skeffington, Inspector of the I.C.R. Police, has been dismissed.

Michigan Central Railroad.—J. H. Snyder has been appointed Assistant General Superintendent, succeeding H. A. Worcester, promoted. Office, Detroit, Mich.

Muskoka Lakes Navigation and Hotel Co.—W. F. Wasley, heretofore Acting Manager and Treasurer, has been appointed Manager.

Niagara, St. Catharines and Toronto Ry.—J. Paul, heretofore General Freight Agent, has been appointed General Freight and Passenger Agent. Office, St. Catharines, Ont.

H. Davis, heretofore General Passenger Agent, has been appointed Auditor, Freight and Passenger Accounts.

Pere Marquette Rd.—J. L. Cramer, heretofore Assistant Comptroller of the Erie Rd.; the Cincinnati, Hamilton and Dayton Rd., and the Pere Marquette Rd., has been appointed comptroller of the C., H. and D. Rd., and the P.M. Rd.

A. Patriarche, heretofore Freight Traffic Manager, has been appointed General Traffic Manager.

Quebec Central Ry.—The circular issued announcing the appointment of J. H. Walsh as General Manager, in succession to F. Grundy, Vice-President and General Manager, and the appointment of E. O. Grundy, assistant to the General Freight and Passenger Agent, to succeed J. H. Walsh as G.F. and P.A., is signed by F. Grundy, Vice-President.

Union Station, Toronto.—J. J. Beck, heretofore G.T.R. agent at Black Rock, N.Y., has been appointed Superintendent Union Station, Toronto, vice W. Gormaly, resigned owing to ill-health.

White Pass and Yukon Route.—J. H. Rogers, heretofore General Agent at Dawson, Yukon, is reported to have been appointed Traffic Manager at Vancouver, B.C.

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Bonnet Falls Power Co.—Application is being made by A. Wright and others at the current session of the Manitoba Legislature for an act to incorporate a company with this title to develop and utilize power on the Winnipeg River, and to build a railway from Winnipeg to Winnipeg River, and northerly and easterly therefrom, together with telegraph, telephone and transmission lines. Mulock and Robarts, Winnipeg, are solicitors for the applicants.

Dawson to International Boundary.—Application will be made next session of the Dominion Parliament for an act incorporating a company with the title of the Twelve Mile Power Co., for the purpose of developing electric power on the Twelve Mile River, and in connection therewith to construct an electric tramway on the west side of the Yukon River, opposite Dawson, to the International boundary.

Fredericton, N.B.—Jas. Mitchell, contractor, West Newton, N.B., has been interviewing the Mayor and members of the city council of Fredericton, N.B., with a view of constructing a street railway there, and from Fredericton to Marysville. The construction of this latter line would be contingent upon the Provincial Government constructing the proposed new highway bridge across the river to suit an electric railway.

Guelph Radial Ry.—We are advised that the recent press report that it was proposed to extend the line to Puslinch Lake at an early date, is one of a class of rumors that is constantly floating about. The company has a charter to construct the line to Puslinch Lake, and in 1905 the Ontario Legislature passed an act extending the time within which it may be constructed. There have been several estimates prepared for the line and its equipment, and the company has recently asked the city council for a grant of $100 to be used in checking over the estimates already received. It is only contemplated to engage the services of the company's Manager and the City Engineer to go over the route, measure up the exact distances, and to consider which of the routes estimated for is the best. The existing street railway is owned by the city, as also is the charter for the Puslinch Lake extension. The question of the construction of the extension has not been decided by the company, and until it has, the matter will not be placed before the ratepayers. The extension talked of is between 11 and 12 miles in length, and the construction and equipment is estimated at from $150,000 to $160,000. (June, 1905, pg. 261.)

Kingston, Gananoque and Perth Ry.—Application will be made next session of the Ontario Legislature for an act extending the time for the commencement and completion of the proposed electric railway between Kingston and Lanark, via Gananoque and Perth; changing the name of the company from the Kingston, Gananoque and Perth Electric Ry., to the K.G. and P. Ry., and inserting the name of J. Kenny as a provisional director in place of the late J. B. McArthur. It is also proposed to ask power to use either steam or electricity, or both, as motive power. The company was originally incorporated in 1895, to run an electric railway from Kingston to Gananoque, Ont., and from Kingston to Perth; in 1903, the name of the company was changed and power given to extend the line from Perth to Lanark, and the following were named as provisional directors:—J. M. Campbell, C. E. Britton, E. L. Atkinson, W. J. Gibson, J. C. Judd, J. B. McArthur and C. J. Sewell.

Kingston, Portsmouth and Cataraqui Electric Ry.—Application will be made next session of the Ontario Legislature for an act confirming an agreement made between the Kingston City Council and the company, dated July 5, 1905; and another dated July 25, 1905, between the Portsmouth Village Council; also to authorize the rearrangement of the bonded and other indebtedness of the company, and of the issues of capital stock.

Levis County Ry.—Application will be made at the current session of the Quebec Legislature, on behalf of J. Forman and others, Montreal, the purchasers at a sheriff's sale of this railway, for an act authorizing them to acquire, hold and operate the line and to extend it in the counties of Levis, Dorchester, Bellechasse, and Beauce. (Jan., pg. 35).

Montreal and Southern Counties Ry.—A meeting of shareholders has been called to be held in Montreal, Feb. 5, for the purpose of electing directors, confirming by-laws, examination, ratification and adoption of proceedings made by a meeting of shareholders of the company, May 26, and Dec. 27. The company has a charter to construct an electric railway from Montreal and along the south shore of the St. Lawrence River.

Niagara, St. Catharines and Toronto Ry.—Application will be made next session of the Dominion Parliament for an act authorizing the construction of the following extensions: from Thorold to Port Colborne, thence easterly to Fort Erie, and thence north-westerly to Niagara Falls; from Niagara Falls to Niagara on-the-Lake; from either Niagara Falls, Thorold, or Welland to Brantford; from St. Catharines to Niagara-on-the-Lake. It is also proposed to ask for power to amalgamate with any company having similar powers, to enter into agreements with power companies; to increase its capital stock, and for other purposes. (Jan., pg. 35).

Niagara-Welland Power Co.—The Railway Commission has approved of plans for the construction of an electric railway through a number of townships in York, Peel, Wentworth, Waterloo, Brant, Perth and Middlesex counties, Ont., upon the right-of-way of a power line. The project is to construct a power line from Niagara Falls to London, with branches to a number of cities and towns in the counties named. The company has been negotiating with the councils of a number of the townships through which the proposed line will pass. The offices of the company are at St. Catharines, Ont., J. MacCunn being Chief Engineer, and the executive committee includes J. B. Sheehan, Counsellor-at-law, New York, and H. Symons, Toronto.

Ottawa Electric Ry.—Plans have been deposited with the Minister of Public Works and the Registrar of Deeds for Carleton County, Ont., showing the site, etc., of an extension of the company's pier at Britannia-on-the-Bay, Ottawa River. The company will apply within one month from Jan. 20, for the Government's approval of the same.

Peterboro' Radial Ry.—Application will be made next session of the Ontario Legislature for an act extending the time for the authorized extensions of the line, and giving power to construct an additional extension from Cedar Lake to Stony Lake, Peterborough county, Ont. (Sept., 1905, pg. 427).

Port Arthur Electric Ry.—The town council has decided to make the necessary application to the Ontario Legislature for authority to construct a belt line through the residential portions of Port Arthur. The town owns the electric railway between Port Arthur and Fort William.

Port Credit, Brampton and Guelph Electric Ry.—Application will be made next session of the Ontario Legislature for the passing of an act to form a company with this title for the purpose of constructing an electric railway from Port Credit to Guelph, Ont., passing through Brampton, Huttonville, Georgetown, Acton, Norval and Glenwilliams, and branch lines. It is also proposed to ask for power to construct telegraph and telegraph lines. B. F. Justin is solicitor for the applicants.

South-Western Traction Co.—Trial trips are being made on the line from London to Lambeth, Ont., and it is expected to have the line running to Port Stanley by May 24. When this line has been completed it is proposed to begin work on a line from London to Ingersoll. (Jan., pg. 37.)

St. John, N.B.—We are advised that the project for another electric railway, in which W. Bruckhoff and A. H. Hannington were interested, has been abandoned. (Jan., pg. 37).

Summerside, P.E.I.—We have received information from Prince Edward Island in respect to the reported projected electric railway in Summerside and vicinity, that while there has been some talk about the matter it is not considered likely that there will be anything done in the near future. The names of the persons who are behind the project cannot be ascertained. (Jan., pg. 37).

Toronto and Hamilton Ry.—There have been some negotiations, we are advised, between the T. and H. Ry. officers and the G.T.R. officers, in reference to the use by the former of the latter's right of way across Burlington Beach, but such are not yet completed. The recent press reports that the T. and H. Ry. will begin its construction at once, and that the G.T.R. line across the beach would at once be double tracked in consequence of the agreement are therefore incorrect.

Toronto and York Radial Ry.—Application will be made next session of the Ontario Legislature for an act authorizing the company to construct and operate the railways, extensions and branches which the Toronto and Scarboro Electric Ry., Light and Power Co., the Toronto and Mimico Electric Ry. and Light Co., and the Metropolitan Ry. are empowered under their several acts to construct. It will also ask for authority to construct branches or extensions to the James Bay Ry., and to Stouffville, Whitby, Bowmanville and Cobourg; for a definition of the clauses of the Railway Act which apply to the company's lines; defining its bonding powers, its rights to hold land for market and park purposes; extending the time for the construction of the various lines, and ratifying agreements between the company and the municipalities of Scarboro, Pickering, Whitby (town and township), and Etobicoke. (Jan., pg. 37).

Western Central Ry.—Application will be made next session of the Ontario Legislature for an act authorizing an extension of the proposed line from Guelph, through the counties of Wellington, Halton, Peel, and York to Toronto, with branches within these counties and the town of Waterloo; to increase its bonding powers and for other purposes. Under the existing charter the company has power to construct a line from London to Berlin, and branch lines in Middlesex, Perth and Wellington counties, the provisional directors being A. T. Drummond, H. M. Mowat, J. I. Davidson, Toronto; A. E. Welch, London, Ont.; W. D. Harris, Ottawa, and A. Hickling, London, Eng.

Winnipeg, Selkirk and Lake Winnipeg Ry.—Application will be made at the current session of the Manitoba Legislature for an act amending the incorporation of the company and authorizing it to acquire by agreement the right to operate its line of railway in and upon the streets of Winnipeg, together with the necessary rights and privileges incidental thereto.

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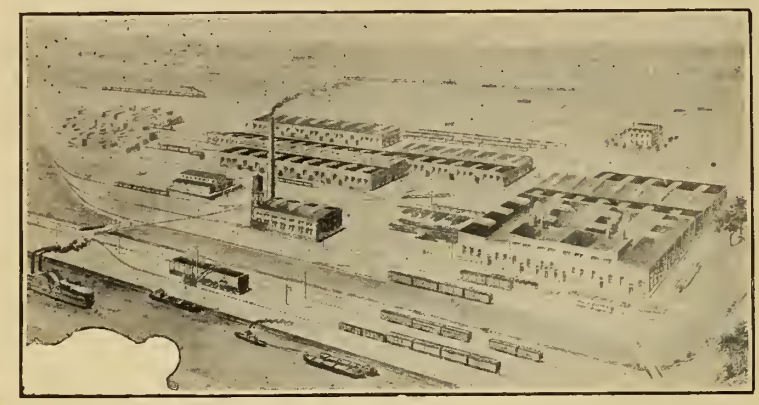

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NOTICE

The Kingston and Pembroke Railway Company will apply to the Parliament of Canada at its next session for an act extending the time within which it may construct the branch line of railway from Sharbot Lake to Carleton Place, which it has been authorized to construct, and for other purposes.

(Sgd.) JOHN WHITEBREAD,
Secretary.

Dated, November 30th, 1905.

PROFESSIONAL CARDS.

THE RAILWAY AND MARINE WORLD is especially adapted for the publication of professional cards of engineers, inspectors, analysts, electrical experts, naval, grain elevator and other architects, solicitors, etc., who desire to bring themselves under the notice of the managements and officials of the various steam and electric railway, steamship, grain elevator, telegraph, telephone and power companies throughout Canada, as well as the locomotive, car and ship builders, contractors and promoters of railway enterprises. THE RAILWAY AND MARINE WORLD is the only one medium through which all these important classes can be reached.

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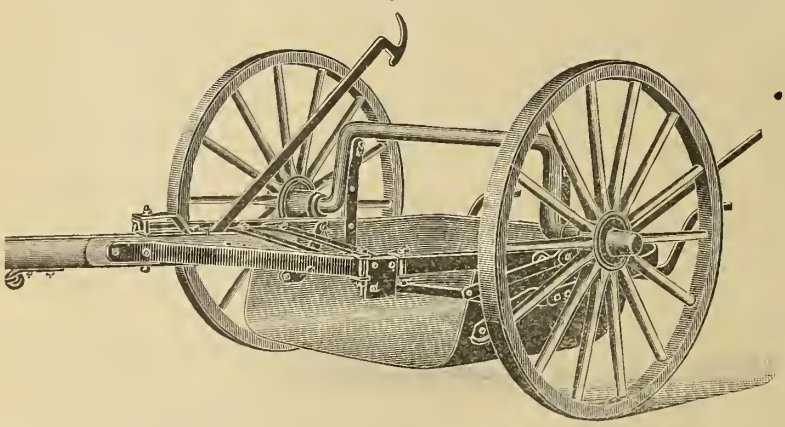

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Electric Railway Notes.

The London Street Ry. expects to have the six new cars ordered delivered by Mar. 31.

A by-law was passed at Fort William, Ont., Jan. 1, providing for the operation of electric cars within the town on Sundays.

M. Power, Superintendent of the Toronto Ry.'s car building shops, has been re-elected a member of the Separate School Board for Toronto.

The Winnipeg Electric Ry. has submitted plans for new poles which it proposes to erect on Broadway, in place of the present wooden poles.

The Halifax Tramway Co. has added two new cars, an electric sweeper and an electric leveller to its rolling stock and equipment. The cars were built by Rhodes, Curry & Co., Amherst, N.S.

A Hamilton, Ont., paper recently stated that it was expected to have the Toronto and Mimico line of the Toronto and York Radial Ry. connected with the Hamilton Radial Ry at Oakville early in the summer; that the through fare would be a cent a mile, and that the trip between Toronto and Hamilton would be made in about 90 minutes.

E. F Seixas, General Manager Niagara, St. Catharines and Toronto Ry., sailed from New York Jan. 13 on the S.S. Minnehaha, for London, Eng., intending to return before the end of February. His eyes have been troubling him lately, and it is hoped that a rest and change will do them good. His duties are being performed temporarily by the company's accountant, J. C. McIntosh.

Electric Ry. Finance, Meetings, Etc.

Brantford Street Ry.—Following are the officers and directors of the re-organized company:—President and Treasurer, A. J. Pattison; Vice-President, J. Firstbrook; other directors: Rev. E. T. Fox, W. S. Dinnick and J. S. King, all of Toronto. The property acquired comprises the line and franchise in the city of Brantford, the cars, power house and plant, and the lien of the Mohawk Park. The lines, according to the returns for 1904, were seven miles in length, and the company then owned its power house, 12 motor cars, four box cars, two platform cars and a snow sweeper. The capital stock subscribed is $200,000, and there is a bonded indebtedness of $125,000 at 5%, maturing in 1932. The report to the Department of Railways and Canals for 1904 showed a total paid up capital of $145,000, of which $125,000 was realized from bonds, and that there was a floating indebtedness of $10,813.88. The gross earnings were $18,158.63, and the year's operations showed a deficiency of $3,441.96. The income for 1905, we have been informed, shows a considerable increase, and the floating indebtedness has been reduced. See also Grand Valley Ry. and Woodstock, Thames Valley and Ingersoll Electric Ry.

British Columbia Electric Ry.—Gross earnings for Nov. $97,165, against $82,625 for Nov., 1904. Working expenses $54,378; renewal funds $8,500; approximate earnings from investments $7,967; net income $42,254 against $43,539 working expenses; $6,695 renewal funds; $2,750 approximate earnings from investments; and $34,541 net income for Nov., 1904. Aggregate gross earnings for five months ended Nov. 30, $491,101 against $374,474 for same period 1904.

Grand Valley Ry.—Following are the officers and directors of the company as reorganized: President and Treasurer, A. J. Pattison; Vice-President, W. S. Dinnick; other directors: J. Firstbrook, Rev. E. T. Fox, J. S. King, of Toronto, and J. R. Stratton, Peterborough, Ont. The line extends from Brantford via Paris to Galt, into which place an entry was secured in Oct. last with a spur to Blue Lake, in the direction of St. George, a total of 22 miles. Of this, six miles to Paris were operated during the year ended June 30, 1904, the mileage to within half a mile of Galt during the greater part of 1905, and the whole line into Galt during the latter portion of the year. The paid-up capital is $700,000, and bonds to the amount of $20,000 a mile were authorized, the total amount issued up to June 30, 1904, being reported to the Dominion Government at $340,000. The company operates under a Dominion charter and can carry freight. With the increased mileage the revenues have increased. Upon the working of the six miles to Paris for the year ended June 30, 1904, the returns made show net earnings of $5,405.76. The company hired power from the Brantford Street Ry. during 1903-04, but subsequently constructed a power station of its own. See also Brantford Street Ry., and Woodstock, Thames Valley and Ingersoll Electric Ry.

Halifax Electric Tramway.—Railway receipts for Dec. $12,642.40 against $12,163.24 for Dec., 1904.

Hamilton, Grimsby and Beamsville Electric Ry.—The financial statement presented at the annual meeting of the shareholders held in Hamilton, Jan. 22, showed earnings amounting to $78,337.51 as compared with $67,725.94 in 1904, an increase of $10,611.57. There was a decrease of $1,108.07 in the operating expenses, making a net increase in profits of $11,719.64. The profits for 1904 were $3,828.37. It was decided to add both years' profits to the profit and loss account, bringing that account up to $39,312.12. The control of the line has been acquired during the year by the Hamilton Cataract Power, Light and Traction Co., and the minority shareholders offered a good deal of criticism upon the mixing up of the transactions of the two concerns in any way, objections being particularly made to the loan of the rails taken up from the Vineland extension to the Hamilton Radial Ry. in connection with its Bartonville extension, and the agreement to grant the Cataract Light, Power and Traction Co. the use of the company's poles for its power line at one-third the cost of maintenance A few years ago the Cataract company offered to pay the entire cost of maintenance of the poles and $1,600 every five years for the same privilege. Following are the officers and directors for the current year: President, J. W. Nesbitt, K.C.; Vice-President, J. Dickenson; Treasurer, J. R. Moodie; other directors: W. C. Hawkins, J. W. Sutherland, J. G. Gauld; Secretary and Manager, G. Waller.

Levis County Ry.—The Quebec Legislature is being asked at its current session on behalf of J. Forman and others, who purchased the line at a Sheriff's sale, for an act authorizing them to hold and operate it. See also pg. 89.

London Street Ry.—Following are the officers and directors for the current year:—President, H. A. Everett, Cleveland, Ohio; Vice-President, T. H. Smallman, London, Ont other directors: P. W. D. Roderick, W. M. Spencer, London, Ont.; H. S. Holt, Montreal; E. W. Moore, C. W. Wason, Cleveland, Ohio; Secretary-Treasurer, G. H. Benston, London, Ont.; Manager, C. B. King, London, Ont. The report of the company's operations for the year has not been given out.

Montreal Park and Island Ry.—At the next session of the Dominion Parliament application will be made for an act authorizing the company to issue additional bonds, preferred stock and common stock, to authorize it to dispose of its railway and to apply the proceeds in payment or part payment of its bonds.

Montreal Street Ry.—Passenger earnings for Dec. $234,710.30; total earnings $236,945.59 against total earnings of $211,283.34 for Dec., 1904. Operating expenses $161,995.10; fixed charges $22,610.57; surplus $52,339.92 against $146,820.79 operating expenses; $18,474.62 fixed charges, and $45,987.93 surplus for Dec., 1904. Net earnings for three months ended Dec. 31, $262,065.54; surplus $196,318.18 against $235,807.69 net earnings and $179,515.17 surplus for same period, 1904.

Niagara, St. Catharines and Toronto Ry.—Gross earnings for 1905 $246,311.41 against $223,924.73 for 1904. Net surplus after paying interest and fixed charges $43,761.29 against $32,965.21 for 1904.

The Nelson Electric Tramway line is operated by the city council, under an agreement with the company. For the year ended Dec. 31, the receipts were $5,461.30, against $4,950.17 for 1904, and the expenses were estimated at $9,125. Of the loss the company is to pay 60% and the city council 40%. The tramway was operated for 42 weeks during the year.

Toronto Ry.—Car earnings for Dec., 1905, $241,489.22 against $213,662.31 fof Dec., 1904.

The company's assessment for 1906 has been increased by the Assessment Commissioner by $482,660.

Woodstock, Thames Valley and Ingersoll Electric Ry.—This line has been acquired by the same interests which control the Brantford Street Ry., and the Grand Valley Ry. The new organization has not been completed, but it is understood that the officers and directors will be practically the same. The line extends from Woodstock to Ingersoll, Ont., 11.50 miles. There is a power house and 7 motor cars. The company has issued $100,000 of common stock, $100,000 of preference stock, and a bonded indebtedness of about $125,000. The gross earnings for the year ended June 30, 1904, were $19,648.29, and the net earnings $9,659.40. We have been advised that the receipts for 1905 show a satisfactory increase and provide for interest on the bonded indebtedness. See also Brantford Street Ry. and Grand Valley Ry.

The Canadian Railway Club's annual dinner at the St. Lawrence Hall, Montreal, Jan. 25, was attended by over 160 members and guests. The President, S. King, Assistant Master Car Builder C.P.R., was in the chair. The toasts were as follows:—The King, proposed by the Chairman. The Railways, proposed by W. G. Ross, Managing Director, Montreal St. Ry., responded to by W. D. Robb, Superintendent Motive Power G.T.R., and H. H. Vaughan, Assistant to the Vice-President, C.P.R. Our Guests, proposed by W. E. Fowler, Master Car Builder C.P.R., responded to by Prof. Stansfield, of McGill University, and W. G. Ross. The Railway Supply Man, responded to by D. M. Brady, R. L. Thomas, and Mr. McGowan, of New York. Excellent vocal music and dialect recitations were interspersed with the speeches, and the dinner was undoubtedly the most successful in the Club's history.

The officials of the C.P.R. passenger department at Toronto sent out a well-designed card for the New Year to their friends. The photographs and autographs of the principal officials as well as some views of scenes on the company's line are given.

The Western Ontario Fish Co. has been incorporated under the Ontario Companies' Act, with a capital of $40,000, and offices at Kenora, Ont., to engage in the fishery business on the Lake of the Woods, and other waters. The company will own a number of fishing tugs. The provisional directors are: G. H. Draper, N. Highbee, and H. E. Hook, of Kenora.

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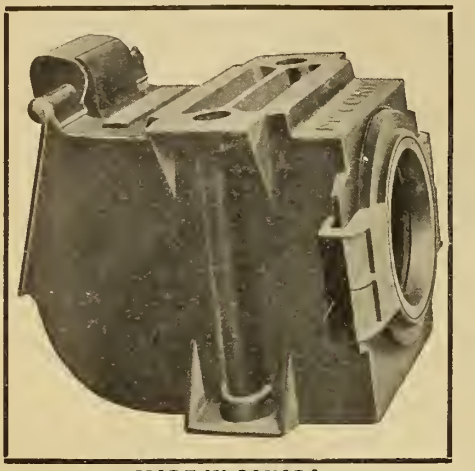

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Proposed Grain Clearing House.

At the annual meeting of the Winnipeg Grain Exchange, Jan. 10, a report was presented from a committee which had met the representatives of the terminal elevator companies for the discussion of a proposal to establish a grain clearing house at Fort William and Port Arthur, Ont. The committee recommended the establishment of such a clearing house, which recommendation was endorsed by the meeting. The method proposed for working the clearing house was to have a good responsible manager with an efficient staff at Fort William, whose duty it would be to attend to all inward receipts and outward shipments, with power to order any one elevator to deliver complete cargo to a vessel, and by so doing avoid friction and loss of time in vessel moving from one house to another. In addition to the office in Fort William it was proposed that an office should also be maintained in Winnipeg with the duties of taking over all documents and receiving from the Fort William office all expense bills, weight certificates, etc., and attending to the proper and prompt distribution to the grain trade in Winnipeg. The vessel owners, the elevators and the shippers to contribute to the expense of operation. The vessel owners getting the greatest benefit, it was considered they would contribute the largest share ; the elevators getting the smallest benefit would contribute less than either the vessels or shippers. The cost estimated to shippers on cargoes was not exceeding 25c. per 1,000 bush., this to be reduced later should results permit, and the charge for expense bills with weight certificates to be 5c. per car. It was considered necessary that the trade should express itself ready to use this method of business, and then the vessel owners could be approached to have the matter concluded. The clearing house to take all responsibility for the prompt delivery to vessels in all cargoes and guarantee that all carload papers shall reach shippers or agents who have offices in Winnipeg in ample time to permit of delivery under Winnipeg market rules.

The question of the establishment of such a clearing house came up owing to what the vessel owners claim to be the very unfair treatment vessels have been getting in the way of loading at Fort William and Port Arthur, owing to the way the grain in the elevators was transferred backwards and forwards between different individuals. Sometimes a shipper purchases a shipment of grain which is to be found scattered over anywhere from three to seven elevators according as cars were distributed on arrival at the terminal port. It was found repeatedly that vessels were following one another around to all the elevators, with the net result to the elevators at the end of the day practically the same as if each vessel had put on her full cargo at a separate elevator. The matter was discussed on several occasions, G. T. Marks being largely responsible for keeping it before the persons interested. As to the question of contributing to the cost, the vessel owners do not fall in with the suggestion that they pay the largest share because they may be apparently going to receive the greatest benefit. They say that the reasoning might be all right if vessel owners were getting fair treatment at present. The establishment of a clearing house would, the vessel owners claim, only remove an injustice under which they are laboring at present. The expense of doing the work and sorting out the orders for the different elevators is borne entirely, as it should be, between the shippers and the elevators, as it is no part of the vessel owners' duty to provide for the prompt loading of a cargo. It is further suggested that the shippers have overlooked the fact that the vessel owners have a remedy in their own hands if the shippers and elevators do not get the clearing house in working order, as all they have to do is to make a higher rate when a vessel has to call at more than one elevator for her full cargo. This can easily be arranged, although the vessel owners so far have decided not to do so in the hope that a satisfactory clearing house arrangement can be entered into. Vessel owners are willing to contribute a fair fee towards a clearing house for acting as the vessel's agent if the clearing house did away with the necessity for an agent. They consider that the proposal to charge 25c. per 1,000 bush. looks as if the shippers and elevators proposed to divert a portion of their present expenses on to the vessels.

Grain Elevator Notes.

The International Elevator at Lang, Sask., which collapsed some time ago, has been rebuilt. The farmers formed a company and the Lang Farmers' Elevator is now running, with a capacity of 40,000 bush.

Contracts made for handling grain through the I.C.R. elevator at Halifax, N.S., to the end of 1905 were for over 250,000 bush., and it is expected that the total will be brought up to 1,000,000 bush. before the summer season of navigation opens.

The Hall Elevator and Grain Co.'s elevator at Vancouver, B.C., was expected to be ready for handling grain by the end of Jan. The elevator has a height of 110 ft. above the foundation piers, has 23 bins and a total capacity of 100,000 bush. It is intended to build a two-story warehouse adjoining the elevator.

J. L. Spink (Ltd.) is the title of a company registered under the Ontario Companies' Act, with a capital of $100,000 and offices in Toronto, to carry on a milling, elevating, grain and produce business, and for other purposes. The provisional directors are:—J. L., D. M., R. I., E. F. Spink, of Toronto; and W. B. Spink of Chicago, Ill.

The Montreal Harbor Commissioners are considering the advisability of building two new floating elevators for the purpose of more expeditiously handling the grain passing through the port. It is estimated that the proposed floating elevators will cost $80,000 each. At present the greater portion of this business is conducted by the Montreal Elevator Co.

The Quebec City Council's suit to recover taxes on the Great Northern Ry. grain elevator at Quebec, was heard at the Recorder's Court, Jan. 3, and judgment was reserved. The elevator has been taxed at an annual value of $12,000 a year, but the taxes have not been paid for several years. The G.N.R. contends that the elevator is of little value.

The Michigan-Saskatchewan Land Co. has been incorporated under the Dominion Companies' Act, with a capital of $100,000 and offices at Cupar, Sask., to operate warehouses and elevators, to carry on a real estate business, and to conduct a general merchandise business throughout Canada. The Provisional directors: E. C. Recor, St. Clair, Mich.; W. H. S. Taylor, F. T. Wolcott, Port Huron, Mich.; G. S. Holbert, Salt Lake City, Utah.; D. and A. Wark, Portage la Prairie, Man.; A. S. Burnham, Sarnia, Ont.

Reports from Winnipeg sum up the disposition of the crop of 1905 at Dec. 31 as follows:

	Bushels.
Inspected at Winnipeg	38,498,250
Interior elevators	14,452,000
C.P.R.	12,179,000
C.N.R.	2,273,635
Fort William	2,745,318
In transit C.P.R.	1,400,000
In transit C.N.R.	737,932

The report also states that 8,000,000 bush. were estimated for as being required for seed, and 7,000,000 as being required for flour.

Following are some dimensions of the cement elevator and steel tower erected at Strathcona, Alta., by the Brackman-Ker Milling Co. The elevator is 82 ft. to rim, and 88 ft. to peak and has a capacity of 100,000 bush. It is 40 ft. in diameter outside measure and 39 ft. inside as the walls are six inches thick. Three-quarter inch iron rods wind spirally round the centre of the wall for the first 40 ft., ½ in. iron rods in the same way for the next 30 ft. and then seven-sixteenths in. iron rods from 70 ft. to the top. These spiral iron rods are secured to upright ½ in. straight iron rods, 12 in. apart in the centre of the wall from base to summit. The latest improved rope-driven machinery is installed in a subterranean passage between the mill and elevator and is capable of discharging 2,000 bush. per hour into the mill. The tower is of steel, 6½ ft. square and 112 ft. high.

Quebec as a Summer Port.

In connection with a number of press rumors which have been in circulation recently we may state that the C.P.R. management is in considerable doubt as to the safety of the St. Lawrence channel between Quebec and Montreal for its new steamships the Empress of Britain and the Empress of Ireland, and there is a strong probability that it may be decided not to run them above Quebec, but to make that their summer port.

They are large vessels, being 569 ft. long with a breadth of 65.2 ft. and when loaded will be of deep draught. They will cost over $2,000,000 each, and the management, in view of many unsatisfactory features about the Quebec-Montreal channel and the defects in the pilotage system which have been clearly established, naturally hesitates to risk the new vessels.

Should Quebec be decided on as the C.P.R. summer port it is probable that a large landing stage, on the Liverpool plan, will be constructed in front of the Champlain Market, an ideal site, and that the C.P.R. tracks will be extended from the eastern portion of the city up to that point, where connection will be made with the Quebec Bridge and Ry. Co.'s line from the north end of the Quebec bridge, and by means of that connection with the National Transcontinental Ry. and Mackenzie, Mann & Co.'s eastern lines.

It is also said that the Allan Steamship Lines Co is considering the question of making Quebec the summer port for its largest passenger steamships.

The Grand Falls Power Co. has given notice under the act respecting certain works constructed in or over navigable waters, that it will apply for approval of the Government of plans for the construction of a dam in the St. John River at Grand Falls, N.B. Plans have been deposited with the Minister of Public Works and the Registrar of Deeds in Victoria County, N.B

The Dominion Government Hudson Bay patrol steamer Arctic has been refitted, and is expected to leave Quebec early in the season to resume her station. The steamer Neptune which is temporarily on the station will return to Halifax, N.S. The limits of the Arctic's cruising are Kennedy Channel to the north, the inlets and channels extending from Baffin's Bay and Davis Strait to the west and Greenland to the east.

The Governor of New York in his speech at the opening of the State Legislature Jan. 3, recommended that something be done in the way of preserving Niagara Falls by limiting the amount of water which may be taken from the river by the New York companies now engaged in developing power; by repealing all undeveloped charters, and by instituting legal proceedings for the forfeiture of the charter of any companies which may be guilty of any abuse of their franchises.

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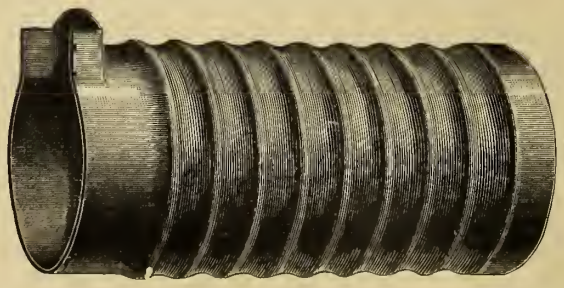

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MARINE DEPARTMENT

LIST OF STEAMSHIPS REGISTERED IN CANADA FROM DEC. 15, 1905 TO JAN. 15.

Name.	No.	Where and When Built.	Engines, etc.	Length	B'dth.	Depth.	Gross tons.	Reg. tons.	Home Port.	Owners.
				ft.	ft.	ft.				
Bessie Dollar..	121,272	Port Glasgow, Scotl'd, 1905	Screw 244 N.H.P.....	369.7	50.0	26.7	4329	2798	Victoria, B.C.....	Robert Dollar, Managing Owner, Victoria, B.C.
Cheam	117,153	Harrison River, B.C., 1905.	Paddle 17 "	105.0	22.0	4.3	286	180	New Westminster, B.C	The Chilliwack Shingle Mfg. Co., Harrison River, B.C.
Emelie.....	121,716	San Francisco, Cal. 1900...	Screw ½ "	25.0	6.7	2.5	6	4	Vancouver, B.C.....	H. E. Sims, Vancouver, B.C.
Frontenac....	121,782	Westmeath, Ont., 1903....	" 1 "	34.4	9.4	3.6	11	7	Ottawa.....	W. J. A. Fraser, Ottawa.
Maple Leaf...	121,715	Vancouver, B.C., 1905.....	" 10 "	52.0	13.8	5.5	40	27	Vancouver, B.C.....	J. H. Sparks, Vancouver, B.C.
Trim.....	111,958	.....	" 2 "	28.0	8.0	2.5	3	3	New Westminster, B.C	H. Trim, Westham Island, B.C.
Wanda II.....	121,843	Toronto, 1905.....	" 21 "	94.0	12.0	6.0	51	33	Toronto.....	T. Eaton, Toronto.

LIST OF SAILING VESSELS AND BARGES REGISTERED IN CANADA FROM DEC. 15, 1905 TO JAN. 15

Name.	No.	Where and When Built.	Rig.	Length	B'dth.	Depth.	Gross tons.	Reg. tons.	Home Port.	Owners.
Hokushin Maru.	121,717	Steveston, B.C., 1905.....	Schr.	34.5	13.0	3.8	15	15	Vancouver, B.C....	Shimetaro Yoshikara, Vancouver, B.C.
McDowell No. 3.	117,152	New Westminster, B.C., 1902	Scow	68.0	23.0	6.6	102	102	"	Jno. McDowell, Vancouver, B.C.
J. McRae.....	121,853	Mahone Bay, N.S., 1905...	Schr.	85.6	24.0	9.0	89	80	Lunenburg, N.S...	A. Ernst, Mahone Bay, N.S.
John Magee.....	116,609	Oswego, N.Y., 1869.....	Barge	142.1	26.2	11.2	335	312	Montreal.....	W. R. Robillard, Montreal
Winnifred.....	121,852	Mahone Bay, N.S., 1905...	Schr.	102.3	25.5	10.0	133	99	Lunenburg, N.S....	A. Ernst, Mahone Bay, N.S.

Northern Navigation Co.'s Report.

The report for 1905 was issued on Jan. 24, over the signature of H. C. Hammond, as follows:—

Navigation opened on Lake Superior Division on April 26, and on the Georgian Bay Division on April 29, over a week earlier than 1904, and prospects looked bright for a good season's business, but they were not altogether realized. The company did not get through the season without some mishaps, the most serious being the burning of the str. City of Collingwood at her dock in Collingwood on June 19. Being a total loss, the underwriters paid $80,000.00, the assured value in our books. The str. Britannic lying alongside the Collingwood was moved away and sustained only slight damage. Owing to the loss of the Collingwood, the str. Majestic had to be withdrawn from a proposed route between Cleveland, Toledo and Sault Ste. Marie, via the North Channels, and placed on the Mackinac route. This reduced the net earnings of the Georgian Bay Division. There was a strong opposition by all water lines on the Lake Superior Division, and on the Georgian Bay Division two new companies with two steamers each appeared in competition, apparently for amusement, resulting in our having to do considerable business at unprofitable rates.

As premised in last year's report, a large amount of money was expended in improvements and needed repairs to the steamers. The United Empire was rebuilt and many improvements added, and her name was changed to the Saronic and so recorded at Lloyds. Altogether $69,282.00 was spent on the steamers, of which over $51,000.00 was spent on the Saronic alone; her value has been written up in the books $30,000, and $20,000 has been written off other steamers. The difference, $10,000.00, with the $33,180.00 at credit of steamers reserve fund last year, and $26,102.60 charged to profit and loss account, provided the amount expended. Last year the steamers appeared in the balance sheet as $870,000.00, deducting the loss of the Collingwood $80,000, and adding $10,000 as above, shows value of $800,000 this year for eight steamers. The gross earnings of steamers show $455,217.74, and the expenditure $367,466.16, leaving net earnings of $87,751.58, which, with balance at credit of profit and loss, made $106,819.59. This account was charged with claims of 1903, $2,185.40; 1904, $4,407.64. Commission re City of Collingwood, $939.29, being composed of expense of collecting some of the policies and on account of moneys spent recovering safe and guarding wreck. $2,000.00 has been written off special account for linen, carriers, etc., reducing that account to $4,000.00 to be written off during the next two years. There was also charged balance of repair and maintenance account $26,120.60, leaving a free balance of $71.184.66, from which a dividend of 6 % for the year 1905 was declared, amounting to $50,400.00, leaving $20,784.66 carried forward.

Your directors felt justified in declaring a dividend at this rate, having agreed to a settlement of the suit mentioned in last annual report against the estate of the late J. J. Long. This suit was tried before Mr. Justice Street in December, and later he gave judgment in favor of this company for $34,500 and costs. Your solicitors advised us in writing that this judgment would surely be confirmed on appeal, and perhaps the amount would be increased, but looking at it from a business point of view your directors concluded that it would be well to settle, thus doing away with some opposition on the Georgian Bay, and re-establishing friendly relations with T. Long & Bro., Ltd., who are large shippers. They, therefore, accepted an offer of $21,500, payable Feb. 1, and the str. City of Windsor, valued at $9,000, to be delivered with her outfit free of encumbrance, each party paying their own costs. (This settlement does not show in the financial statement presented.)

Your directors are pleased that, not including the claims paid, the operating expenses compare well with the past three years, being for year 1903, 94.16 % of gross earnings against 1904, 89.71 %; 1905, 80.73 %. Our line expenses are $2,000 less than last year, but we must look for increased earnings to reduce the percentage of operating. With regard to the coming season we can only hope that with continued immigration to the west and expenditure in railway building, etc., we shall enjoy our share of prosperity and good earnings.

ASSETS.

Eight steamers	$800,000.00	
Building and mach'y parts..	7,389.01	
		$807,389.01
Fuel and supplies	$14,352.08	
Insurance unexpired.....	7,558.12	
Insurance receivable.....	10,513.48	
Accounts receivable.....	46,471.66	
Stocks and bonds.....	1,500.00	
Bank of Toronto and cash...	27,198.18	
		$107,593 52
		$914,982.53

LIABILITIES.

To Shareholders:		
Capital stock.....	$840,000.00	
Profit and loss.....	71,184.66	
		$911,184.66
To the Public:		
Accounts payable.....		3,797.87
		$914,982.53

PROFIT AND LOSS ACCOUNT.

Balance from 1904.....	$ 19,808.01	
Less appropriation for directors' fees.....	740.00	
		$ 19,068.01
Gross earnings.....	$455,217.74	
Total expenditure	367,466.16	
Net earnings.....		87,751.58
		$106,819.59
Less claims of 1903 paid 1905	$ 2,185.40	
Less claims of 1904 paid 1905	4,407.64	
Less commission, etc., re str. City of Collingwood burned)	939.29	
Written off special account linen and freight carriers..	2,000.00	
Balance repair and maintenance account written off.....	26,102.60	
		35,634.93
		$ 71,184.66
Less dividend at 6% for 1905, payable Feb. 1, 1906.....		$ 50,400.00
		$ 20,784.66

The annual meeting was held in Toronto Jan. 30, too late to be reported in this issue.

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Atlantic and Pacific Ocean Marine.

The British barque Lass of Melford was driven ashore on the west coast of Vancouver Island, B.C., Dec. 28, and lost with all hands.

The Dominion Government has arranged to renew the mail subsidy to the C.P.R. steamers trading between Vancouver, B.C., and Yokohama, Japan.

The Quebec Transportation Co. in addition to its fortnightly service between Quebec and British ports is considering the desirability of developing a trade to Montreal.

The Allan Line str. Corinthian paid a fine of $500 at Halifax, N.S., Dec. 26, for allowing a Chinaman to land at St. John, N.B., who was not possessed of the necessary papers.

Sir Christopher Furness of the Furness-Withy Line, and Manager of the Manchester Liners, was the first member to be elected to the new British Parliament, being returned unopposed.

Capt. Abernethy of the Donaldson Line str. Tritonia was presented with an easy chair as a Christmas gift by a number of Fredericton, N.B., residents who crossed the Atlantic on the steamer during the summer.

Officials of the Donaldson Line in Glasgow, Scotland, state that nothing is known there of any proposed purchase of the company's steamers by the C.P.R. A Montreal despatch recently gave currency to such a report.

Sir D. Dixon, managing owner of the Lord line of steamers, has been elected Lord Mayor of Belfast, Ireland, for the seventh year since 1892. He has also been re-elected M.P. for the northern division of the city.

The Furness Line str. Florence reached Halifax, N.S., Jan. 4, after a stormy voyage, being 15 days from London, Eng. During the voyage fire broke out in number two hold, but was extinguished before any serious damage was done.

The Grand Trunk Pacific Ry. Co. officially announces that fleets of modern steamships will be established by the company for ocean navigation between the Atlantic port and Europe, and from the Pacific port to China and Japan.

The Elder-Dempster Co.'s str. Angola, engaged on the Canada-Mexican route, which grounded at the entrance to Havana Harbor, Cuba, early in Dec., has been abandoned by the owners to the underwriters. It is not expected that the salvage will be very great.

The C.P.R. company's second new trans-Atlantic str., the Empress of Ireland, was launched at the Fairfield yards, Glasgow, Scotland, Jan. 27. A description of this steamer as well as of her sister ship, the Empress of Britain, was published in our last issue.

The possibility of developing an ocean port at Gaspe, Que., has been recently discussed in some shipping circles in England. The route, it is claimed, would be 582 miles shorter than the present route to Montreal. An attempt to divert trans-Atlantic steamers to a port near Gaspe some years ago proved a failure.

Four new steamers are under construction in Great Britain for the Liverpool-Victoria Line, operated by Alfred Holt & Co., Liverpool, Eng. They are twin screw steel steamers of large cargo capacity and will be named Bellerophon, Teucer, Cyclops, Titan, and Antiochus, and the first named is expected to reach Victoria in April.

Negotiations have been completed for a renewal of the contract for the trans-Atlantic mail service with the Allan Line. The C.P.R. offered to join with the Allan Steamship Co., the service to be given by the two fastest steamers of each company, but the latter declined. The Allan Company has two turbine steamers on the route, and proposes to add two more.

D. McNicoll, Vice-President C.P.R.; G. M. Bosworth, Fourth Vice-President; J. W. Leonard, Assistant General Manager, and A. Piers, Manager Atlantic Steamships, C.P.R., visited Quebec early in Jan. for the purpose of looking over proposed wharfage sites there. This visit has given rise to the suggestion that the company proposes to make Quebec the summer port for its two new steamers, at least.

H. Bourlier, General Passenger Agent for Ontario for the Allan Line Steamship Co., has resigned after 34 years of service. H. F. Bradley, Chief Clerk of the Passenger Department at the Montreal office, has been appointed to succeed him, and H. C. Bourlier, son of H. Bourlier, has been appointed as assistant, and also as travelling agent vice J. H. Thompson, who died recently. Offices 77 Yonge St., Toronto.

H. A. Allan, of the Allan Line, states that it is expected that the repairs to the turbine str. Victorian will be completed in time to permit her to sail from Liverpool for Canada Feb. 22, and that the turbine str. Virginian would be replaced on the run about three weeks later. The latter is having her four-bladed propellers replaced by three-bladed ones of larger diameter, and the number of revolutions will be reduced to 300 per minute.

Officers of the Allan Line have had some negotiations with the Dominion Government with a view of dropping the run to St. John, N.B., for a couple of months, owing to their being short of steamers. The company's turbine steamers are under repair and the Bavarian is on the rocks near Quebec. The Government, however, has decided that the steamers will have to come on to St. John after having put in at Halifax, N.S.

The U.S. str. Valencia, running between San Francisco, Cal., and Puget Sound ports, went ashore near Cape Beale, Vancouver Island, during a fog on the night of Jan. 22, and will become a total loss. There were on board 94 passengers and 60 of a crew, and of these only about 20 were saved. The Valentia was an iron screw steamer, 252.7 ft. long, with a beam of 34 ft., and a depth of 19 ft., and was built at Philadelphia, Pa., 1888.

H. C. Bourlier, who has resigned his position as General Passenger Agent, Allan Line for Ontario, with office at Toronto, has been engaged in transportation service in Canada since 1855. He was G.T.R. agent at Quebec and Point Levis, coming to Toronto in 1858 to take charge of the first Union Station there. After 14 years' service there he entered the service of the Allan Steamship Co., at Toronto, and was G.P.A. for Ontario for the past 34 years.

The Quebec Transportation Co., organized to establish a line of steamships to trade between Quebec and Great Britain, has been reorganized, and now includes representatives of the Canadian Northern Ry. and the Quebec Central Ry., as well as of the Quebec and Lake St. John Ry. The new board was organized Jan. 23 as follows:—President, W. Power, M.P.; Vice-Presidents, J. G. Scott, Q. and L. St. J. Ry.; C. W. Spencer, Mackenzie, Mann & Co.'s Eastern Lines; Managing Director, T. Harling; other directors: J. H. Walsh, Quebec Central Ry.; J. T. Ross and A. E. Doucet. The Canadian Northern Ry. interests, it is reported, have secured one-half of the stock of the Quebec Transport Co., and the management has entered into an agreement with the Transport Co. respecting the supplying of freight to the steamers.

Jas. Thom, heretofore Assistant Manager of the Montreal office of the Dominion Line steamships, and of the Leyland Line, has been appointed Manager, succeeding John Torrance, sr., resigned. Mr. Thom continues to retain his position as manager of the Hamburg-American Line at Montreal. He first entered transportation service with the Canada Shipping Co., owners of the old Beaver Line, in 1868, becoming Freight and Passenger Manager in 1882, remaining in that position until 1893, when he became Manager of the Hamburg-American Line at Montreal. In 1900 he took over the management of Furness, Withy & Co.'s steamers in addition, and in 1903 joined the Dominion Line steamships, retaining the management of the Hamburg-American Line.

The Dominion Government has signed a contract with R. A. Alley, of Vancouver, B.C., for a freight steamship service between Vancouver and New Zealand. The points of call in New Zealand are to be three at least, and are to alternate between Auckland, Wellington, Dunedin and Bluff. The present service is to be bi-monthly, but this is dependent upon the action of the New Zealand Government, which has not yet advised the Dominion Government of what it has done in the matter, although it is understood that the service has been brought about through its influence. The subsidy payable by the two governments is £10,000 a year each, and the contract is to run for three years, althhoug it may be terminated at an earlier date, if the contract with the New Zealand Government is for a shorter period than three years. The steamers which will be placed on the route have not been named, but they form part of the fleet of Bucknall Bros., of London, Eng. Mr. Alley stated recently at Seattle, Wash., that two steamers would be put on the route at once, Bucentaur and Africander, 5,600 tons gross, and 4,250 tons net, and having a speed of 11½ and 10½ knots an hour respectively. The steamers will call at Honolulu, as well as at Auckland, Dunedin, Wellington, Lyttletown and Bluff. They will also run to Sydney, New South Wales, and probably to other ports in Australia.

The Department of Marine has issued a notice to mariners setting forth that Marconi wireless telegraph stations have been established by the Dominion Government on the Atlantic coast and in the Gulf of St. Lawrence as aids to navigation, and are being operated for the Department by the Marconi Wireless Telegraph Co. Stations are being operated at Fame Point lighthouse, off the Gaspe coast; Heath Point lighthouse, Anticosti Island; Cape Whittle, Quebec Labrador; Point Amour lighthouse, Newfoundland Labrador; Belle Isle lighthouse on the north-east end of the island; Point Rich lighthouse, west coast of Newfoundland; Cape Ray and Cape Race lighthouses, south-west point of Newfoundland; Sable Island, near the main station; Cape Sable lighthouse, south-west point of Nova Scotia; and Partridge Island, entrance to St. John Harbor, N.B Vessels fitted with Marconi apparatus passing these stations can communicate with them and messages will be forwarded to their destination at commercial rates. There is a trans-Atlantic station at Glace Bay, N.S., operated by the Marconi Co. as a commercial enterprise, but it does not communicate with vessels. There is a low-power station at Cape Bear, P.E.I., but it is intended only for the use of the steamers crossing in winter between Prince Edward Island and the mainland, and is not available for commercial purposes. The Government telegraph service, under the Department of Public Works, maintains Marconi wireless telegraph stations at Chateau Bay and at Belle Isle south lighthouse to connect its telegraph lines with the ship reporting station on the island. During the winter the operators are removed, and the reports are transmitted from the station at Belle Isle north-east lighthouse to the station at Point Amour. There are also Marconi wireless telegraph stations at Battle Harbor, Venison Tickle, American Tickle, and Domino Tickle, under the control of the Newfoundland Government.

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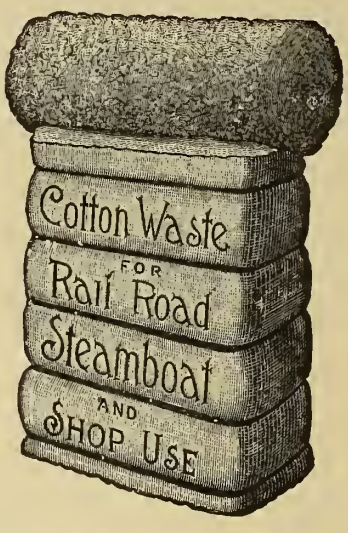

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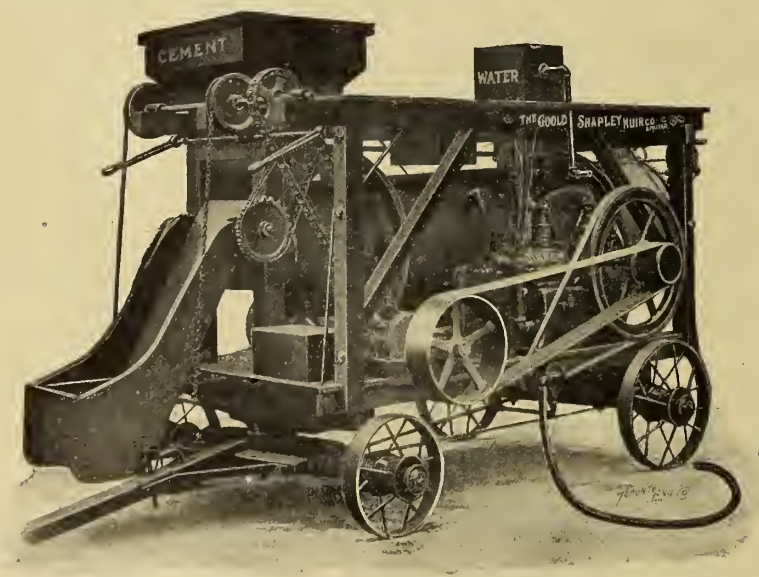

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Maritime Provinces and Newfoundland.

During 1905 there were 168 vessels registered in Newfoundland.

J. A. McLean has been appointed harbor master for the port of Forchu, N.S.

T. P. Charleson, Ottawa, has been awarded a contract to build a wharf at Shippegan, N.B., at a cost of about $16,000.

W. Cunard, senior partner in S. Cunard & Co., Halifax, N.S., steamship owners and agents, died in London, Eng., Jan. 12, aged 80.

H. M. Leger has been appointed wharfinger of the Dominion Government wharf at St. Marys, N. B., and G. Cook to a similar position at Port Matoun, N.S.

The str. Richard, under charter to the Inverness Ry. and Coal Co., ran ashore near Cape Negro, Shelburne, N.S., Jan. 8, and is reported to be a total loss.

The assets of the Atlantic Whaling and Manufacturing Co., including the steamers Hump and Fin, were sold at St. John's, Nfld., by the liquidators, Jan 10.

The Dominion Coal Co.'s barge Rembrandt, which broke away from a tug off Isaac's Harbor, Nov. 29, has been given up as lost together with her crew of six.

The St. John, N.B., steam ferry boats carried 1,599,728 passengers during 1905, and earned $21,638.06, against 1,567,991 passengers and $21,314.79 for 1904.

The Plant Line str. Arranmore, grounded while entering Boston, Mass., from Halifax, N.S., Jan. 4, and was subsequently released. Six plates had to be replaced in her hull.

The Dominion Atlantic Ry. str. Yarmouth is giving a tri-weekly service between St. John, N.B., and Digby, N.S.; and the str. Prince Albert has been withdrawn from the Kingsport-Parrsboro, N.S., run for the season.

The Reid Newfoundland Co.'s steamers Bruce and Neptune have been undergoing considerable repairs at St. John's, Nfld., recently. The Bruce has been resheathed and the engine and boilers overhauled, whilst the Neptune has been fitted with a new keel.

The str. Elaine is being fitted with a new boiler, brought out from Glasgow, Scotland, and in the overhaul she is receiving will be provided with additional stateroom accommodation. The work is being done at Indiantown, and the steamer's route for the season will be from St. John to Gagetown, N.B.

The str. Acadia, which was built in the U.S. in 1880, and which was purchased in 1886 by the Dominion Government for a fisheries protection cruiser, was sold out of the service in 1904, and has since been lying at Halifax, N.S. She is to be taken to St. John, N.B., where she will be broken up.

Two companies are in course of formation in Nova Scotia for the purpose of putting small freight steamers on runs on the coast. The first of these has chartered a steamer to run from Halifax to Sheet Harbor, beginning April 1, and is having a steamer built at Sheet Harbor, which is expected to be ready in July. The second purposes to run from Halifax to Mushaboom, Isaac's Harbor and other eastern shore ports. The promoters are negotiating for the purchase of a suitable steamer

The S. H. White Co. has been incorporated under the New Brunswick Companies' Act with a capital of $298,000 and offices at Sussex, to take over several businesses including the partnership carried on under the title of the Alma Lumber and Shipbuilding Co. The company proposes to carry on a shipbuilding business in addition to lumbering and general trading operations. The provisional directors are:—S. H. White, W. J. Mills, H. P. Robinson, of Sussex; W. W. White, J. E. Moore, of St. John.

The wrecked French str. Pro Patria having been practically reconstructed, an order-in-council has been passed admitting her to the British-Canadian register at Halifax, N.S., as soon as the usual formalities have been compiled with by the owner, W. W. Lewis. The order also permits a change of name to the Canada, as soon as the registration as the Pro Patria has been completed. It is proposed to organize the Canada Steamship Co. and to put the steamer on a run between Halifax and Sydney, N.S., calling at Gaberous, Louisbourg and Glace Bay en route.

Province of Quebec Shipping.

The work of strengthening the cross wall of Louise dock, Quebec, has been commenced by the contractors.

The Department of Marine has ordered that an inquiry be held into the circumstances attending the loss of the Halifax str. Lunenburg, on the Magdalen Islands, Que.

The ferry boat St. Laurent, which sank at her dock in Montreal recently, has been raised. It is estimated that it will cost from $3,000 to $4,000 to put her in good condition again.

H. Cleghorn, who for a number of years was connected with the Montreal Transportation Co., and subsequently with the Beaver Line of ocean steamers, died in Montreal recently, aged 74.

The owner of the str. Prefontaine has made an apology and paid the costs in some proceedings taken against him for disobeying the orders of the Harbor Master of Quebec in connection with the mooring of the steamer.

Following are the officers and directors of the Ottawa River Navigation Co. for the current year:—President, H. W. Shepherd; Vice-President, H. Wallis; Managing Director and Secretary Treasurer, R. W. Shepherd; other directors: R. Bolton, A. F. Riddell.

The Murray Bay Lumber and Pulp Co. has been incorporated under the Dominion Companies' Act, with a capital of $500,000 and offices at Etmire de la Malbaie, Que., to carry on a general lumbering and manufacturing business, and in addition thereto to develop electric power, and to acquire and operate steam and other vessels.

The ships and all other property of Charles Robin, Collas and Co. (Ltd.), a corporation established in the Island of Jersey, and registered in Quebec, has been made over by deed to the C. Robin, Collas Co. (Ltd.) which has been incorporated under the Dominion Companies' Act, with offices at Halifax, N.S. The company trades in Baie de Chaulers and adjacent districts of Quebec.

The Richelieu and Ontario Navigation Co. will apply next session of the Dominion Parliament for an act giving further and additional powers to issue bonds, change the mode and way of calling and holding the meetings of shareholders, to extend and change the mode of issuing stock, and to give additional powers to make by-laws for the purpose of carrying on its business.

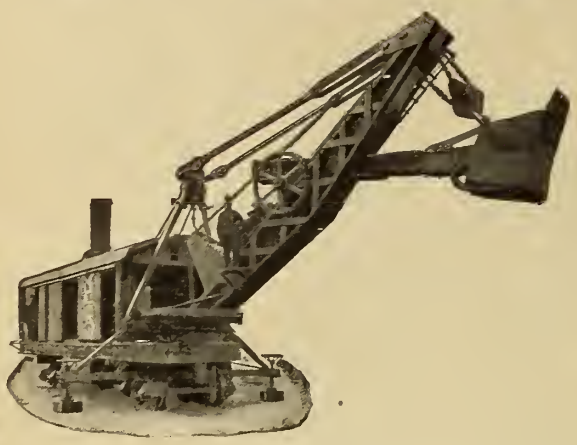
The Dominion Park Co. has been incorporated under the Dominion Companies' Act, with offices at Montreal and a capital of $300,000, to carry on the business of amusement park owners, and in connection therewith acquire and operate boats and launches to be driven by steam, electric or other power. The provisional directors are:—W. G. Ross, D. McDonald, J. E. Conlin, Montreal; C. A. Duclos, K.C., Westmount, Que.; H. A. Dorsey, New York City.

C. J. Smith, General Manager, Richelieu and Ontario Navigation Co., returned to Montreal from a trip to Great Britain and France, Jan. 3. He is reported to have stated in connection with the proposal to add some new steamers to the company's fleet, that as a result of his trip, he was of opinion that at least the hull, engines and boilers can be built in Great Britain and brought to Canada with advantage. The upper works and special fittings for the trade could be added at Sorel.

Following are the officers and directors of the Montreal and Kingston Forwarding Co. for the current year:—President, F. Ross, Quebec; Vice-President, J. B. Carruthers, Kingston, Ont.; Secretary-Treasurer, G. R. Moir; other directors: J. T. Ross, Quebec; W. Stewart, Montreal. Reports as to the year's operations were presented at the annual meeting held in Montreal, Jan. 12, and approved. The directors have decided to make considerable improvements in the fleet during the current year.

A company has been formed in connection with the Quebec and Lake St. John Ry. for the purpose of acquiring the steamers which at present run between Roberval and points on Lake St. John; purchasing additional steamers and opening routes up on the Peribonca, Mistissani and Ashuapmouchan rivers. A charter has been applied for under the Quebec Companies' Act. At a meeting held Jan. 17, officers and directors for the current year were elected as follows:—President, H. J. Lyons; First Vice-President, J. G. Scott; Second Vice-President and Managing Director, R. Dupont; Third Vice-President, F. X. Laroche; Secretary and Traffic Superintendent, T. L. Marcoux; Purchasing Agent, H. B. Locke; other directors: J. L. Guay, L. Lindsay, H. Gagne. The company proposes to operate its steamers on routes aggregating about 200 miles, and at the opening of navigation will have the three steamers hitherto on the lake in service. Later in the season there will be added light draft, flat-bottomed, stern-wheel steamers, now being built for the company at the Polson Iron Works, Toronto. These steamers are being specially built so as to be able to reach the furthest points of settlement in the district during the period of low water. Consideration is being given to the inauguration of a line of freight and passenger steamers to run between Chicoutimi and River du Loup, and so afford a continuous round trip of the Saguenay River. The title of the company is the Lake St. John Navigation Co. It has placed an order with the Polson Iron Works, Toronto, for the construction of two light draught, flat-bottomed, stern-wheel steamers for the river traffic from Roberval, Que. on Lake St. John. One steamer is to have a length of 65 ft., by 17 ft. beam, and the other 100 ft. long, by 20 ft. beam, and to have a draught when loaded not exceeding 18 inches. The hulls are to be of steel, and the stern wheels are to be driven by engines of suitable power to give a speed of 10 miles an hour against the current. These steamers are to be completed in Toronto, then packed in sections and conveyed to Roberval, where they will be put together and put on the lake. The order was placed by R. Dupont, and H. B. Locke, Manager and Purchasing Agent, respectively, Jan. 25, and it is expected that the steamers will be delivered at Roberval and put together in time for the summer business. They are to be specially equipped for the colonization business in the Lake St. John country. Messrs. Dupont and Locke went on to New York from Toronto, to endeavor to arrange for the purchase of one or two steamers, which it is proposed to place on a route from Chicoutimi, to run on the Saguenay River. The company at present owns the following steamers:—Mistassini, built at Roberval, Que., 1891; side wheel, engines 200 h.p.; length, 130 ft., breadth, 22.4 ft., depth, 8.2 ft.; tonnage, gross, 235 tons; register, 148 tons. Peribonka, built at Roberval, Que., 1892; side wheel, engines 28 h.p.; length 90 ft., breadth 21.8 ft., depth 6.2 ft.; tonnage, gross, 179 tons; register, 113 tons; and the Colon, Roberval, and Merilees, tugs, which do not appear on the list of vessels registered in Canada.

STEAM SHOVELS



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TORONTO AND WINNIPEG

Ontario and the Great Lakes.

Mrs. W. E. Phillips, wife of G. P. Phillips, Dominion Steamboat Inspector, Kenora, Ont., died in the hospital there, Dec. 21.

The Toronto City Council has under consideration tenders for the erection of a new ferry building on the water front at Toronto.

The steamship under construction at Collingwood, Ont., for the Midland Navigation Co., will be named Midland Prince.

Capt. P. Sullivan, St. Catharines, Ont., has not been appointed to the command of the fisheries protection cruiser Vigilant, vacant owing to the resignation of Capt. Dunn, as reported.

An Order-in-Council has been passed authorizing a change in the name of the str. F. B. Bradey, O. no. 107,948, registered at St. Catharines, Ont., to that of Thomas Freel Battle.

It is expected that the str. Cole will be taken off the route between Buffalo, N.Y., and Crystal Beach, Ont., and put on the Detroit, Toledo and Georgian Bay run by her present owners.

The Leamington, Ont., Town Council has petitioned the Dominion Government to vote a subsidy of $3,000 a year for a small steamer to make a daily trip between that town and Pelee Island.

It is reported that the Toronto and St. Catharines Navigation Co. is arranging to have constructed a twin-screw steamer for the run between Toronto and Port Dalhousie, Ont., for the season of 1907.

The Judicial Committee of the Imperial Privy Council has decided on appeal that the U.S. fishing tug Kitty D. was not in Canadian waters when she was seized by the Dominion cruiser Petrel during the summer of 1904.

The Pennsylvania Ry directors have approved of the agreement with the C.P.R. and J. W. Ellsworth, of Cleveland, Ohio, respecting the operation of a joint car ferry service between Ashtabula, Ohio, and Port Burwell, Ont.

Capt. J. H. Scott, for many years master of the freight and passenger str. Persia, running between St. Catharines, Ont., and Montreal, has retired. He navigated the lakes for 52 years, for 38 of which he was master.

The tug Queen of Alexandria Bay passed Brockville, Ont., Jan. 8, having in tow the schooner Jessie of Ogdensburg, N.Y. The ferry boat between Brockville, Ont., and Morristown, N.Y., was making regular trips Jan. 10.

The Wabash and Pere Marquette railway companies have engaged a powerful tug to keep the Detroit River open, perhaps as far as Lake Erie, in an effort to prevent the trouble the Detroit-Windsor car ferries have each winter.

The St. Clair and Erie Ship Canal Co. will apply next session of the Dominion Parliament for an act to revive and amend the act of incorporation and subsequent acts, and to extend the time for the construction of the projected canal.

Capt. A. M. McGregor, of Goderich, for 68 years engaged in navigating the Great Lakes, for 20 of which he was master of the Dominion Government survey str. Bayfield, died at Windsor, Ont., Dec. 20, aged 83, while on a visit to his son.

D. O'Connor, Temagami, Ont., is having a new steamer built at Sorel, Que., for the trade on Lake Temagami. The new steamer is to be shipped in sections to Temagami early in the season, and put together on the lake in time for the tourist trade.

Following are the officers and directors of the Montreal Transportation Co. for the current year:—President, B. MacLennan; Managing Director, Jas. A. Cuttle; Secretary, G. M. Kinghorn; other directors: T. A. Crane, A. Kingman, F. Robertson, A. E. Ogilvy.

T. Long, of Toronto, ex-Secretary and ex-Director of the Northern Navigation Co. of Ontario, accompanied by his wife, daughter and stepson, sailed from Boston, Jan. 13, on the S.S. Canopic for Alexandria, Egypt, intending to be away for several months.

Capt. W. D. Douglas, who died at Winnipeg, Man., Jan 21, aged 71, was a well-known mariner on the Upper Lakes prior to taking up his residence in Winnipeg during the early boom days. He was best known as proprietor of the Leland House there for several years.

A. J. Markham, General Passenger Agent Erie and Western Transportation Co. (Anchor Line), Buffalo, N.Y., has been absent from duty since early in October, shortly after his return from the General Passenger Agents' meeting in Mexico. He has undergone an operation, and it is hoped that he is now on a fair way to recovery.

The Pere Marquette Rd. car ferry Marquette left Cleveland, Ohio, Jan. 3, for her regular trip to Port Stanley, and Rondeau, Ont., but could not make either port owing to the wind. She waited until the weather moderated, making Port Stanley Jan. 6, and Rondeau on the afternoon of the following day. The trip across the lake to Port Stanley usually takes about six hours.

The Canadian canal at Sault Ste. Marie, Ont., was open for 255 days during the season of 1905, viz., from April 10 to Dec. 20, while the U.S. canal was opened four days later and closed four days earlier. During the season 21,679 vessels passed through carrying 44,270,680 tons of freight, and 54,204 passengers, against 16,120 vessels, 31,546,106 tons of freight, and 35,695 passengers for the season of 1904.

Following are the officers of the Collingwood Council of the National Association of Marine Engineers for the current year:—President, J. L. Smith; 1st Vice-President, Jas. Cameron; 2nd Vice-President, W. Harman; Secretary, A. Lockerby; Treasurer, W. Harding; Conductor, Jas. Scott; doorkeeper, Geo. Scott; Auditors, C. Farrar, W. Whipps; Representatives to Grand Council, J. L. Smith, J. W. Aston.

The report of the Harbor Master at Toronto, as to the trade of the port for the season of 1905, shows the following receipts:—Merchandise, 42,753 tons; coal, 182,453 tons; stone, 3,415 tons; horses, 201; lumber, 1,586,000 ft.; ice, 6,317 tons; grain, 18,100 bushels; bricks, 8,375 tons; sheep 22. The harbor dues received on the above amounted to $7,360.17. The total tonnage for the season was 1,405,854.

The Turbine Steamship Co.'s str. Turbinia is running between Santiago, Cuba, and Kingston, Jamaica, as a day steamer, no alterations having been made so that she might take a night run. We were advised Jan. 25, that no arrangements had been definitely concluded in reference to the proposal to secure another steamer for the Toronto-Hamilton run in the spring and late fall in case the Turbinia goes to the West Indies again at the close of the 1906 season. Nothing has been definitely decided with reference to the project to put a steamer on a run between Hamilton and Dundas, Ont.

The Detroit, Belle Isle and Windsor Ferry Co. has placed an order in the U.S. for a new ferry steamer for its trade. She will be built of steel, fitted with six water-tight compartments, her principal dimensions being:—length over all, 180 ft.; between perpendiculars, 165 ft.; breadth, 45 ft.; over guards, 57 ft.; depth of hull, 18 ft.; draught, 12 ft. She will be fitted with triple expansion engines, having cylinders 20, 32 and 50 in. diameter, by 36 in. stroke; supplied with steam by two Scotch boilers 13 ft. 3 in., by 12 feet long, carrying 180 lbs. of steam. She will make 16 miles an hour and carry 2,700 passengers.

The officers and directors of the Turbine Steamship Co. for the current year are;—President, J. Moodie; Vice-President, C. A. Birge; Secretary-Treasurer, G. Hope; other directors: T. Eaton, C. Marshall, W. C. Hawkins, Col. J. A. Davidson. At the annual meeting in Hamilton, Jan 8, the financial statement was presented and considered satisfactory, but it was decided not to declare a dividend, owing to the fact that the directors have under consideration plans for another steamer. As soon as the plans are completed it is proposed to hold another meeting of shareholders to approve of the same, and authorize the raising of the additional capital required.

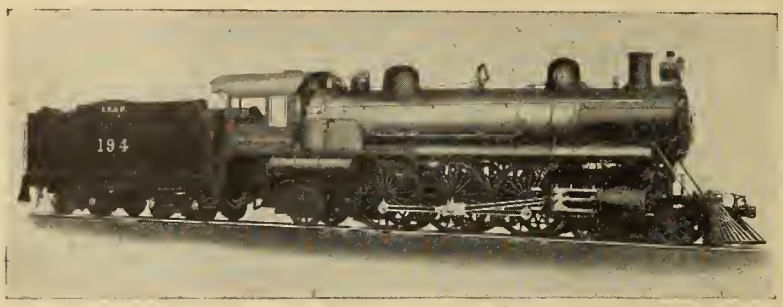
R. O. and A. B. Mackay, Hamilton, have purchased the str. Pere Marquette no. 2, heretofore engaged on Lake Michigan for the Pere Marquette Rd. The steamer will, it is stated, form the nucleus of a fleet of freight and passenger steamers to run between Hamilton and Montreal, calling at Toronto en route. Pere Marquette no. 2 is a wooden screw steamer, built at Detroit, Mich., 1882. Her dimensions are: length, 178 ft.; breadth, 30 ft.; depth, 12 ft; and she has a gross cargo capacity of 771 tons. She is fitted with fore and aft compound engines, cylinders 21 in. and 37 in. diameter, by 36 in. stroke, to which steam is supplied by one fire box boiler 8½ ft. by 16 ft.

At the annual meeting of the Farrar Transportation Co. at Collingwood, Ont., Jan. 9, reports were presented showing that a satisfactory year's business had been done, and a dividend was declared. The directors were authorized to enter into a contract for a new steamer to have a capacity of 8,000 tons and to cost about $337,000, and H. Calderwood was engaged to prepare the plans and to supervise the construction. The directors were re-elected, the officers and board for the current year consisting of: President, G. A. Farrar; Vice-President, F. Scott; Secretary, G. E. Fair; Treasurer, W. Rowland; Manager, Capt. Pearsall; Master of str. Newmount, Capt. F. A. Bassett; other directors: G. J. Ferris, J. A. Wylie, H. Baird, W. McCallum.

The Montreal, Ottawa and Georgian Bay Canal Co. will apply next session of the Dominion Parliament for an amendment to its act of incorporation, by increasing the capital stock from $10,000,000 to $50,000,000; by authorizing it to issue bonds or other securities to the extent of $100,000,000, and by extending the time authorized for the commencement and completion of the canal. The proposal of the company is to deepen the channel of the Ottawa River at various points between its confluence with the St. Lawrence and near Mattawa, Ont.; to construct a canal from that point through the divide to Lake Nipissing, and to deepen the channel in that lake and the French River out to Georgian Bay, so as to provide either for a 20 ft. or 26 ft. navigation. The Dominion Government in 1904 directed a survey of the whole route to be made, and this was completed during 1905, the engineers in charge being at present engaged in arranging all the information collected and figuring out results. A report is expected to be presented next session of Parliament.

A Montreal inventor has taken out a patent in Canada and the U.S., for a combined steering and propelling apparatus for vessels of every size. The invention is designed to steer and propel a vessel without the use of a rudder, and to reverse or check its speed without stopping the engines.

Baldwin Locomotive Works



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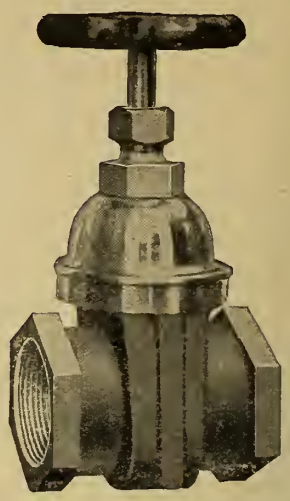

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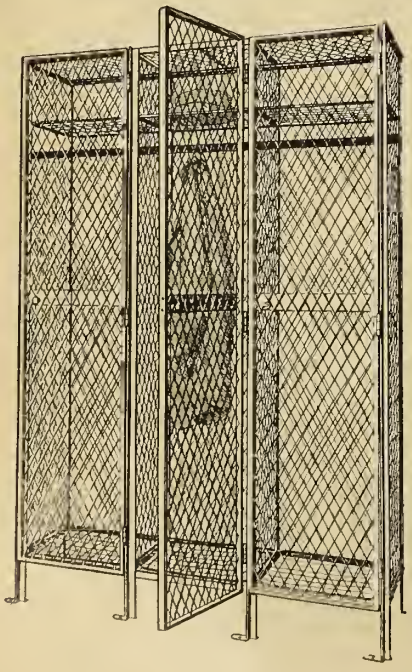

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B.C. and Pacific Coast Shipping.

The Vancouver, Westminster and Yukon Ry. has leased the old ferry slip and some adjacent property at New Westminster, B.C., for wharfage purposes.

The C.P.R. is reported to be making surveys with a view of making Alberni a permanent port for its coasting steamers on the west coast of Vancouver Island.

An order-in-council has been passed authorizing a change in the name of the tow barge Lord Wolseley, no. 86,540, registered at Victoria, B.C., to that of Everett G. Griggs.

Reports from Yukon territory state that the river was open at Yukon Crossing at the end of Dec., something which has not been known since trading began on the river.

Capt. J. W. Rogers has been appointed local pilot for the Fraser River, as the result of a conference between the local pilotage board and the New Westminster City Council.

Press reports current at Vancouver state the Dominion Government proposes to build a cruiser similar to the Canada, and two smaller steamers for the fishery protection service on the Pacific coast.

The Pacific Coast Steamship Co.'s str. City of Pueblo, trading between Seattle, Wash., and other Puget Sound ports and San Francisco, became disabled off the mouth of the Columbia River, and was towed by the steam schooner Chehalis to her destination.

The Alaska Commercial Co.'s str. Portland went ashore on Spire Island, near Ketchikan Dec. 23, and later despatches stated that she would be a total loss. The Portland was one of the oldest vessels on the run between Seattle, Wash., Vancouver, B.C., and Seward, Alaska.

The Pacific Marine Underwriters, Limited, is the title of a company which is seeking an act of incorporation next session of the Dominion Parliament, to carry on the business of marine insurance in all its branches. McPhillips, Tiffin and Laursen, Vancouver, B.C., are solicitors for the applicants.

A report has been circulated in Victoria, B.C., and in places south of the International boundary that the U.S. Government proposed to buy out the Canadian sealing vessels and to pay a percentage of the value of the seal catch. The operations of the sealers have been a cause of difference between Great Britain and the U.S. for some years.

St. Lawrence & Chicago Steam Nav. Co.

The following report was presented at the 15th annual meeting of shareholders in Toronto, Jan. 9:—The season of 1905 on the lakes was a fairly prosperous one. The large crop in Manitoba and the Northwest caused a brisk demand for grain-carrying vessels during the fall months, and fairly remunerative rates of freight and constant occupation were obtained for all the company's steamers. The directors have paid a dividend of 10% on the capital stock and have carrried forward $50,811.90 to credit of profit and loss, making a total at credit of that account of $80,057.27.

PROFIT AND LOSS.

Insurance	$ 17,248.42	
Cost of management, viz.: Directors and auditors fees, salaries, taxes, office rent, etc.	10,500.87	
		$ 27,749.29
Dividend, 10%, payable Jan. 2, 1906		56,330.00
Balance carried forward		80,057.27
		$164,136.56
Balance forward Jan. 2, 1905		$ 29,245.37
Steamships	$130,950.79	
Uncollected freight	2,500.00	
Interest	1,440.40	
		134,891.19
		$164,136.56

LIABILITIES.

Capital	$563,300.00
Balance of profit carried forward	80,057.27
	$643,357.27

ASSETS.

Four steamers, viz.—Rosedale, Algonquin, Iroquois, W. D. Matthews	$560,000.00
Insurance unexpired	6,500.00
Uncollected freight	2,500.00
Balance in Dominion Bank	74,357.27
	$643,357.27

The board for the current year is the same as before, viz.:—President, W. D. Matthews; Managing Director, J. H. G. Haggarty; Superintendent, S. Crangle; other directors: C. S. Gzowski, G. F. Hagarty, E. B. Osler, M.P.

Notices to Mariners.

The following notices to mariners have been issued by the Department of Marine:—

118. Dec. 4.—Quebec—261. River St. Lawrence, ship channel between Quebec and Montreal, Ile Bigot to Becancour River, changes in buoyage. 262. River St. Lawrence, ship channel between Quebec and Montreal, Becancour, range lighthouses built. 263. River St. Lawrence, ship channel between Quebec and Montreal, Cap Madeline village, range lighthouses built.

119. Dec. 13.—British Columbia—264. Stuart channel and Trincomali channel, unchartered shoals, hydrographic information. Alaska—265. Clarence strait, Tongras narrows, Guard Island, red sector in light.

120. Dec. 16.—New Brunswick—266. South coast, Bay of Fundy, Dipper harbor, construction of breakwater, temporary buoys. Prince Edward Island—267. South coast, Hillsborough bay, Fitzroy rock, bell buoy replaced by gas and whistling buoy. Quebec—268. Chaleur bay, north side, Port Daniel lighthouse moved to centre of lengthened wharf.

121. Dec. 19.—Atlantic Ocean—270 and 271. Wireless telegraph stations established in Gulf of St. Lawrence, Labrador and Newfoundland coasts.

122. Dec. 22.—British Columbia.—272. West coast of Vancouver Island, Clayoquot sound, Templar channel, Lennard Island, fog alarm to be established. 273. Strait of Georgia, Fraser River lightship, additional light.

123. Dec. 29.—Nova Scotia—274. South Coast, Halifax harbor, mooring buoys withdrawn. Prince Edward Island—275. South Coast, Hillsborough bay, Charlottetown harbor, buoyage.

Northern Navigation Co. of Ontario.

Two years ago we made serious charges against the then management of the Northern Navigation Co. of Ontario. The publisher of this paper, as a stockholder in the company, and as the representative of a number of other stockholders, laid the charges before certain directors of the company and insisted that they should be investigated. An investigation was made, and although it was incomplete and not satisfactorily conducted in several respects, it sustained most of our charges, and at the annual meeting of shareholders in Collingwood in Jan., 1904, our publisher produced indisputable evidence in support of the other charges and clearly showed that the company had been used for the benefit of two of the directors, Thos. and J. J. Long, and that the shareholders had suffered in consequence. Shareholders who were present at that meeting will remember that every attempt possible was made to prevent our publisher from exercising his undoubted right to speak, that he was continually interrupted by the late J. J. Long, and by other directors who should have supported him in getting at the facts, and who to-day probably regret the course they adopted. We had the satisfaction of knowing, both by personal expressions of thanks and by numerous letters received, that our course in this matter was very warmly approved by the shareholders generally, and we have now the further satisfaction that the suit brought by the company against T. Long and J. J. Hopkins, executors of the late J. J. Long, full particulars of which were given in our July 1905 issue, has been decided in favor of the company. This judgment holds that statements of earnings presented by J. J. Long were untrue to his knowledge and were wilfully misrepresented by him in order that the directors might be induced to declare dividends which they would not have declared had they been made aware of the true earnings. And these misrepresentations were made in order to enable J. J. Long to unload his stock at high prices. But he was not the only one who benefited by the result of the misrepresentations. The following details of the stock transactions of the Long Bros. were given in our issue of Jan., 1904:—

"A considerable amount of stock having been placed with the public in 1901, an allotment of new stock having been made in 1902, and the price having worked up to a pretty high figure, it appears that the Long Bros. and their adherents on the board started in to reduce their own holdings. On June 30, 1900, J. J. Long had 409 shares; in May, 1902, he added one more, and in July, 1902, received 205 of the new allotment, a total of 615. Then the clearing out started. On Aug. 5 he transferred 315 shares, and on Dec. 10, 50. On Feb. 17, 1903, a further 200 were disposed of, reducing his holding to 50 shares. On Sept. 30, 1903, 95 shares were transferred to him, but he got rid of them the same day, so that from Feb. up to Dec. 23, 1903, when our information was obtained, he has held only 50 shares.

"Thos. Long acted in unison, only a little more so. On Jan. 30, 1900, he held 410 shares. The new allotment in July, 1902, gave him 205 more, or 615 in all. On July 31 he transferred 265 shares; on Aug. 5, 50; on Nov. 24, 100, and on Nov. 25, 200; leaving none at his credit on the company's books, and he remained in this position, without vacating his seat on the board, until Dec. 10, 1902, when 50 shares were transferred to him by J. J. Long. He still held these on Dec. 23, 1903."

J. J. Long is dead, but Thos. Long remains. He has followed his late brother's example, who after the exposure in 1903-4 went for an extended trip, and he is now in Europe. Whether he knew anything of John's misrepresentations or not, there is no use attempting to dispute the fact that he benefited by their result. J. J. Long, when confronted with the evidence of what had been discovered, agreed to make restitution to the company, and had he lived a few days longer there is no doubt he would have done so. Up to date we have not heard that Thos. Long has offered to contribute anything out of the greatly inflated price he received for his stock. In this connection it is interesting to note that in addition to being an executor, Thos. Long is also the principal heir of J. J. Long's estate.

Following is Mr. Justice Street's judgment in the suit above referred to:—The action was brought to recover from the executors of J. J. Long, deceased, damages alleged to have been suffered by plaintiff owing to certain alleged false and fraudulent misrepresentations made by deceased. The evidence at the trial was to the following effect:—

The Northern Navigation Co. began its operations in 1899; it had a fleet of steamers running on the Upper Lakes and had its head office at Collingwood, where J. J. Long lived and carried on business. The evidence does not show how early his connection with the company began, but he was Vice-President in 1901 and President in 1902 and 1903, and prepared the reports in those years.

The company's stock was originally $317,100. It was increased to $321,700 in 1900,

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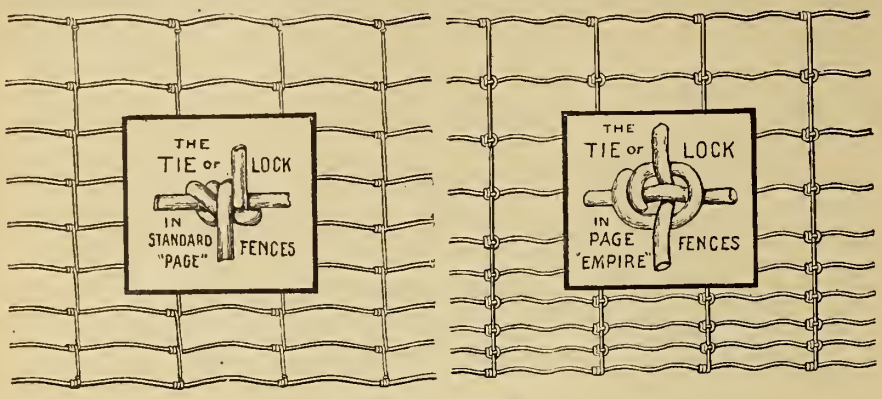

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160 Acres at	$4.00	per acre,	cash payment	$95.85,	first year's interest	$32.64	and nine instalments of	$80.00
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" "	5.00	"	"	119.85,	" "	40.81	" "	100.00
" "	5.50	"	"	131.80,	" "	44.89	" "	110.00
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" "	7.50	"	"	179.75,	" "	61.22	" "	150.00
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Export Elevator, Buffalo, N.Y.	"	1,000,000	"
J. R. Booth Elevator, Depot Harbor, Ontario	"	**1,000,000**	"
Southern Pacific Terminal Co.'s Elevator, Galveston, Texas	"	1,000,000	"
Erie R. R. Transfer & Clipping House, Chicago, Ill.	"	100 cars in 10 hrs.	
Manchester Ship Canal Co.'s Elevator, Manchester, Eng.	"	**1,500,000**	"
Burlington Elevator Co., Peoria, Ill.	"	500,000	"
Canada Atlantic Railway Elevator, Coteau Landing, Que.	"	**500,000**	"
Northern Grain Co., Manitowoc, Wis.	"	1,350,000	"
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in which year the company purchased $5,370 of the stock of the North-West Transportation Company, owning three large steamers which were competitors with the plaintiff company steamers. The N.W.T. Co.'s head office was at Sarnia.

During 1901 the N.N. Co. purchased 1,503 shares in the N.W.T. Co. which gave it a controlling interest in that company; in order to make this purchase the stock of the N.N. Co. was increased to $560,000.

During 1902 the N.N. Co. purchased the balance of the stock of the N.W.T. Co. and increased its own capital to $840,000. The two companies retained their separate sets of books and were worked as two separate companies until the end of 1902, the accounts of the N.W.T. Co. being kept at Sarnia, and those of the N.N. Co. at Collingwood.

At the end of the season of 1901, the annual report presented to the N.N. Co.'s shareholders shewed the following as the sole entry under the head of "Receipts":—"Net revenue over and above expenses and interest for year ended Dec. 31, 1901, $80,967.90."

A draft of this report was produced and showed how this $80,967.90 was actually made up, viz.:—

Net revenue of steamers, 1901		$34,880.48
Profit on purchase of N.W.T. Co. stock	$18,161.04	
Less interest and expenses in flotation of stock	12,123.62	
		6,037.42
Proportion of profits in N.W.T. Co.'s earnings for 1900 and 1901		40,050.00
		$80,967.90

The last mentioned sum of $40,050.00 did not represent dividends or profits received from the N.W.T. Co., but was a book entry in the books of the N.N. Co., representing estimated profits earned by the Co., and it remained in the books as an asset at the end of 1902, although the N.N. Co. had in the meantime acquired all the stock of the N.W.T. Co. and in its accounts of that year treated the two companies as merged.

On Dec. 15, 1902, a meeting of the N.N. Co.'s directors was held, at which J. J. Long, as President, was in the chair. The entry in the minutes of what took place is as follows:—

"The President read an approximate statement of the season's earnings, showing the net earnings to be $87,583.23. Moved by W. Hendrie, seconded by W. J. Sheppard:—Resolved that a dividend of 5% be and is hereby declared for the six months ending Dec. 31, 1902, on the paid up capital of this company, being at the rate of 10% per annum, and that the same be payable on Jan. 2, 1903, etc., etc." This dividend was paid in due course.

On Jan. 27, 1903, a meeting of the directors was held at Collingwood, the President, J. J. Long, in the chair. He presented the annual financial statement and its report, and it was adopted. This report contained a statement of profit and loss for the year as follows:—

RECEIPTS.

Balance at credit of profit and loss, 1901		$12,356.11
Gross earnings of steamers	$532,301.48	
Total expenses	443,781 56	
Net profit		88,519.92
Premium on shares		28,533.50
		$129,409.53

APPROPRIATIONS.

Half-yearly dividend, July 1, 1902	$28,000.00
Half-yearly dividend, Jan. 2, 1903	41,773.84
Directors' fees, etc	3,910.00
Transferred to rest account	40,000.00
Transferred to profit and loss, 1903	15,725.69
	$129,409.53

Endorsed upon the report presented to the shareholders was a report purporting to be signed by the company's auditors that they had examined the books and vouchers for the year ended Dec. 31, 1902, and found the attached statement a true and correct report of the same.

A directors' meeting was held on June 9, 1903, J. J. Long, President, in the chair. It was moved by W. Hendrie and seconded by H. B. Smith that a dividend of 5% for the six months ending June 30, 1903, should be paid to the shareholders, and this dividend amounting to $42,000, was accordingly paid.

At the end of the season of 1903 it was found that the net earnings for that year of the amalgamated company had been only $26,397.60, and as $42,000 had been paid out in July for dividends the whole profit for the year as well as the balance of $15,725.69 carried to the profit and loss account from 1902 were wiped out by the July dividend, with the exception of $123.29 and no dividend was therefore declared. No dividend has since been declared.

At the beginning of 1904, J. J. Long ceased to be the President and went to Europe, and his successor, H. C. Hammond, ascertained in March of that year, by an expert examination of the books, that the profits for 1902, instead of being $88,519.92, as represented by the report to the shareholders in that year, were only $57,568.85, and a correspondence upon the subject took place between Mr. Hammond and J. J. Long, who was still in Europe and who did not return until June, 1904. Mr. Long said that the figures for the report had been furnished to him by C. A. Macdonald, who kept the accounts of the N.N. Co. and had done so since its formation, and that he could no doubt explain the discrepancy. Mr. Macdonald, on being applied to, stated that the figures in the report were not those which he had given to Mr. Long. Finally, after Mr. Long's return, Mr. Macdonald was brought down to Toronto by Mr. Hammond, upon the day when J. J. Long had gone to Collingwood, and his story was taken down and put in the form of a statutory deelaration by the solicitor for the N.N. Co. Upon the facts stated in this declaration, J. J. Long was charged with having been guilty of fraud in the preparation of the reports for Dec., 1902, and Jan., 1903, and damages were claimed from him, and as appears from the report for 1904, put in as an exhibit, negotiations for a settlement took place, which came to an end by the death of J. J. Long about July 4, 1904.

It is admitted by defendants that in the approximate statement submitted to the directors by J. J. Long on Dec. 15, 1902, upon which the dividend for that half-year was actually declared, the net earnings of the company for the season of 1902 were overstated over $30,000; and that in the report for the same year in which the approximate estimate was supposed to have been corrected by the ascertainment of actual results, the net earnings for that season were over-stated nearly $31,000, but it is contended by the defendants that the proof of wilful and fraudulent mistatement on the part of J. J. Long, sufficiently convincing to justify me in finding him to have been guilty of deceit, is not forthcoming.

The plaintiffs' case largely, though not entirely, depends upon the evidence of C. A. Macdonald, who kept the books and accounts of the N.N. Co. for several years at Collingwood. After the return to Canada of J. J. Long early in June, 1904, and after two interviews upon the subject between him and Mr. Hammond, Macdonald was brought down to Toronto on June 15, 1904, and he made a statutory declaration in Mr. Hammond's office, drawn by the solicitor for the company, from the statement made by Macdonald. This declaration was produced at the trial by the plaintiff, at the request of the defendants who put it in. Macdonald was sworn as a witness at the trial and his evidence was to the following effect, agreeing in substance with his statutory declaration:—Down to the end of 1902, the accounts of what was called the Sarnia branch of the business, that is to say, the business connected with the steamers of the N.W.T. Co., were kept at the office of that company in Sarnia. The accounts of what was called the Collingwood branch, that is the business connected with the steamers of the N.N. Co., were kept by Macdonald at the office of that company in Collingwood. In Dec., 1902, the accounts of the Sarnia branch of the business had not been completed, and the only information possessed by Macdonald with regard to them was derived from the "trip sheets" of the Sarnia steamers, which were forwarded each week to the Collingwood office. These sheets showed the gross amount of freight and passenger earnings of the trip to which they related and the expenses of the trip, but did not show the line expenses, that is to say the general expenses of the whole business apart from the particular expenses of each trip. The accounts of the Collingwood business had not been completed for the season, so that only an approximate estimate of the earnings could be made. It was usual about the middle of Dec. to make up an approximate estimate of the earnings for the year for the purpose of the declaration of a dividend, and Macdonald upon being asked by J. J. Long, shortly before the directors' meeting of Dec., 1903, to prepare such a statement, thus described what took place:—"As nearly as I can remember, I made up an approximate statement of the earnings of the N.N. Co., shewing the result of that, and then made up an approximate statement from the trip sheets of the N.W.T. Co. and gave these figures to J. J. Long, who usually made out the wording and everything of the report himself.

"How did you come to make up that report?

"A. At his request.

"Q. Well, what did you put in the report?

"A. Just the figures that I got from the trip sheets.

"Q. And from the books of the N.N. Co. Did you give that report to Mr. Long?

"A. I did, sir.

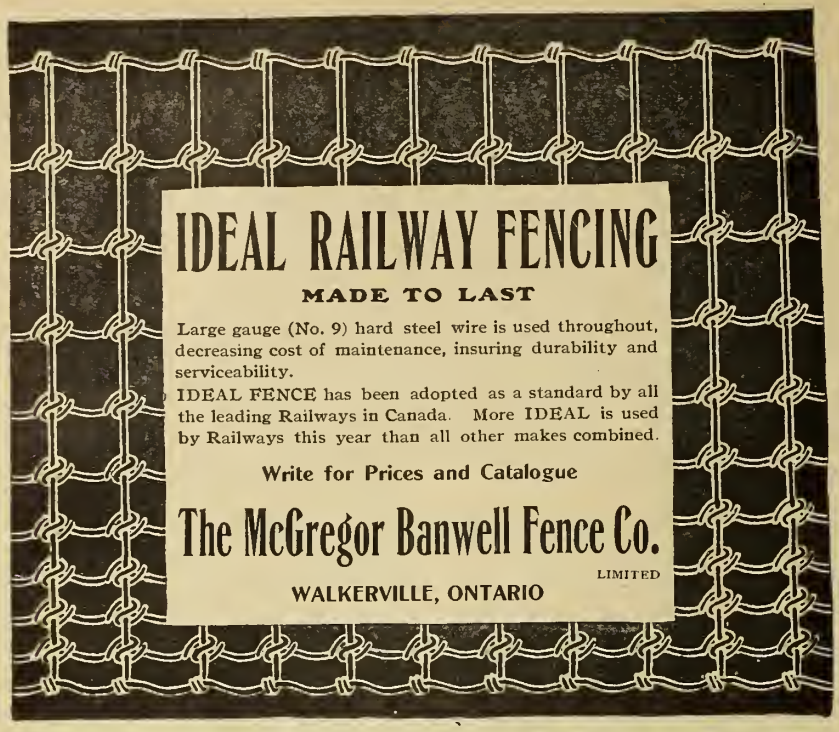
"Q. Did you explain anything in particular about it to him?

"A. I explained to him at the time that the trip sheets did not appear to have the line expenses included in the expenses of the trip.

"Q. What did he say as to that?

"A. He said to never mind that, to make the report up according to the trip sheets."

Macdonald then said that from the information he had before him the largest amount he could have estimated as the profit of both lines for the season was about $67,000. The approximate estimate submitted by J. J. Long to the directors' meeting on Dec. 15, 1902, showed the earnings at $87,585.23. Macdonald then stated that shortly before the directors' meeting of Jan. 27, 1903, at which the annual statement and report for the year was presented, he was asked by J. J. Long to prepare the figures for the statement. At that time his own accounts of the Collingwood branch were completed, but he had no return of the result of the accounts for the year from the Sarnia branch. At the request of J. J. Long he telephoned to the Sarnia office for them and gave them to him for insertion in the proposed statement, which Long then prepared. Macdonald says the statement as prepared by Long did not contain the figures given him, but showed figures more favorable to the company by some $20,000 or $30,000: he could not recollect the exact amount, but it was in that neighborhood. He was asked why he did not call Mr. Long's attention to the discrepancy and he answered with emphasis:—"Nobody



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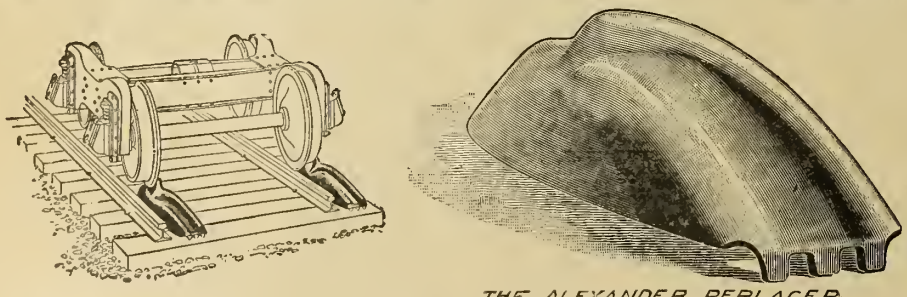

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would be likely to tell Mr. Long he was doing things wrong; he was making up the statement to suit himself. I had nothing to do with making it up. I gave him all the facts I could give him." An answer perfectly natural and unstudied, which seemed to throw valuable light upon the relation in which the two men stood to one another—Macdonald a mere bookkeeper, doing only what his employer told him to do, and not venturing to remonstrate.

A partial draft of the report of the directors to the shareholders for 1902, with pencil figures and amendments of the previous year's report in the handwriting of J. J. Long, was produced, showing his own personal connection with the statement and report. The report when drawn by Long was handed to Macdonald in order that it might be typewritten, and he did not see it again until it was printed. Endorsed upon the printed report is the certificate of the auditors of the company dated Jan. 24, 1903, in which they certify that they have examined the books and vouchers and find the attached statement true and correct. The two auditors were called as witnesses and stated they had never seen the books and vouchers relating to the Sarnia branch of the business, and their recollection was that the certificate they signed was confined to the Collingwood branch. My view on this point was that they had probably signed the certificate which was drawn and laid before them without observing its contents. The books of the Collingwood branch were made to agree with the report for 1902 in the following manner by Macdonald:—He took from the reports the gross earnings as stated there of both branches. He deducted from them the gross earnings of the Collingwood branch, which he knew, and treated the balance as the gross earnings of the Sarnia branch, charging it to the N.W.T. Co., and crediting it to the revenue account in his own books. In the same way he took from the printed report the gross expenses stated there of both branches. He deducted from them the gross expenses of the Collingwood branch, which he knew, and treated the balance as the gross expenses of the Sarnia branch, crediting it to the N.W.T. Co., and charging it to the revenue account in his own books. Macdonald says he made these entries by J. J. Long's express direction. When the accountant, W. H. Cross, came to examine the books in March, 1904, he discovered that the result of these entries was to show a profit of nearly $31,000 greater than the books themselves actually showed at the time they were made.

Macdonald's evidence was given, so far as I could judge, with fairness and candor. He appeared at one time to have varied from a former statement in some degree, but I came to the conclusion that this arose from his having misunderstood the precise question which was asked him. It was strongly urged against the credibility of his testimony, that having made the statutory declaration of June 15, 1904, he was in vincilus and was not free to vary from it except at the risk of a prosecution for perjury. The foundation for the criticism of counsel for the defendant upon the action of the solicitor for the N.N. Co., in obtaining this declaration, seems to be the remarks of Lord Langsdale, Master of the Rolls in Howey v. Mount, followed as they are by those of Sir Henry Strong, C.J., in the Welland Election case, in both of which cases the action of a solicitor who took in the one case an affidavit, and in the other case a statutory declaration from a person whom he intended to examine as a witness in a proceeding then pending in court, was spoken of as erroneous or "improper," because the effect would be to entangle the conscience of the proposed witness. These cases, perhaps, can scarcely be taken as being on all fours with the present, for the reason that when Macdonald's statutory declaration was taken no action was pending, nor so far as appears was the necessity for bringing an action contemplated. At the same time, however, I am bound to say that a simple signed statement would have been quite as effectual for any conceivable purpose, more so for most purposes, and would not have been open to the objections which have been very fairly taken here, and the taking of statutory declarations under any similar circumstances is certainly not a practice which should be followed. In weighing Macdonald's evidence against this objection to it, I have sought in vain for any motive which should cast upon him the blame for that which has taken place, and lift it from Long's shoulders. There is no doubt that the report exaggerated the earnings for 1902 by some $30,000 and that the books of the company were by means of fictitious entries made to corroborate the misstatement in the report. Either Macdonald or Long is responsible. Macdonald is here and has told the story which I have given above; Long is not here to contradict him, but Macdonald was, so far as I can see, without any motive to misrepresent the position of the company or to throw upon Long the odium of having wilfully misled the board and the shareholders. When Macdonald made his statement to Mr. Hammond, J. J. Long was alive and in a position to contradict it. It is not as if the charges had been kept back until Long was dead. Long, on the other hand, was in a position with regard to the company which made a continuance of confidence in its earning power a matter of much importance to him and there seems no doubt that he profited largely by the erroneous belief of other people in the ability of the company to pay dividends which his report of Jan., 1903, was calculated to induce. On Feb. 17, 1903, he sold 200 shares of his stock for $28,385, that is to say, at a premium of 42%; and on Sept. 30, 1903, he sold 94 shares at a premium of 17¾%, retaining only the 50 shares required to qualify him. Besides this the firm of T. Long & Bro., composed of himself and his brother, sold 100 shares on Feb. 19, 1903, and 70 more on March 2, 1903.

In considering the question of the motive and intention to be imputed to J. J. Long, it appears to be pertinent, although my conclusions by no means depend upon it, to refer to the misleading character of the statement inserted as to the net revenue for 1901 in the report for that year, and the absence of the item making up the figures of $80,967.90, which were set forth in the draft report, but not in the report presented to the shareholders, and to the fact that in July and Nov. and Dec. of 1902, J. J. Long sold a large quantity of stock at high prices. No dividend has been paid on the stock since that paid in July, 1903. It does not appear that any statement of approximate earnings for the half-year was or could be furnished so early in the season and I think it must properly be assumed that the dividend of $42,000 then paid was paid upon the strength of the report of the previous Jan.

Upon the whole, therefore, I find myself compelled to the conclusion that the statement of approximate earnings laid before the directors by J. J. Long on Dec. 15, 1902, and the annual statement presented by him to the board on Jan. 27, 1903, and afterwards to the shareholders were **untrue to his knowledge** and that the earnings for the year 1902 were **wilfully misrepresented by him** in order that the directors might be induced to declare dividends which they would not have declared had they been made aware of the true earnings.

The question as to whether the directors acted upon the representation made to them is a question of fact which I have to determine. The evidence of W. Hendrie, one of the directors to whom the reports were presented, and who agreed to the declaring of the dividends of Jan. and July, 1903, was very positive that he would not have done so had the true facts been made known, but his cross-examination shows the difficulty that any honest witness must necessarily feel in saying positively what course he might have taken upon a state of facts different from that upon which he had acted. Apart, however, from any positive evidence upon the point I think I am at liberty to come to a conclusion from the probabilities of the case as to whether the directors acted upon the misrepresentation made to them in declaring these dividends. It is against probability that J. J. Long would have misrepresented the earnings of the company if he had believed that the directors with the true facts before them would have declared 10% dividends. He therefore may be assumed to have been of opinion that the misrepresentation was necessary to induce them to do so. Then the misrepresentation was one which was well calculated to induce them to declare the usual dividends for it showed earnings for the year amply sufficient for the purpose. The dividends of 10% required earnings of at least $84,000 to support them. The earnings shown by the report were $88,519.92, sufficient to pay the dividend and leave a surplus, whereas the real earnings were only $57,568.85, which would not have justified a dividend of even 7% for the year. I come to the conclusion, therefore, that in declaring the dividends of Jan. and July, 1903, the directors acted upon the misrepresentation made to them by J. J. Long.

The defendants contend that the N.N. Co. has suffered no damage because the money which was paid out was paid out in dividends to the shareholders and was not paid out of capital, but out of monies which could lawfully be applied in payment of dividends. It is true that these dividends were not paid out of the actual fixed capital of the company, and that the payment was not utra vires, and that it was paid to the persons who were then the shareholders of the company, but the fact remains that by reason of the misrepresentation of the position of its affairs the company has parted with sums of money which, but for that misrepresentation, it may reasonably be assumed would still be at its credit. The fact that the then shareholders received their money does not help the company back to its money. It is the company and not the shareholders who now sue to recover it; and it is evident, though that makes no difference in the principle, that the present shareholders are not the same as those who received the dividends. But for the misrepresentation the company would now be in possession of so much more working capital, or would be indebted to the bank in so much less.

The amount of the damages which the N.N. Co. should recover is a matter of more difficulty. To speculate as to whether the directors would have declared any dividend, and if so at what rate, would be to embark upon a most unsatisfactory and uncertain enquiry. On the other hand, I do not think I can err against the defendants if I assume that the earnings of the company were misstated by J. J. Long in a round amount which he thought would be sufficient to induce the directors to keep up the 10% dividend, and with it the market price of the stock. On the other hand, if the company is put back in the position in which it would have been had the representation made to the directors been true, I think it will have received all that it can properly claim. I therefore assess the damages at $34,500 which I make up by taking the amount of the misrepresentation at the end of Dec., 1902, to have been roundly $30,000, and I add three years' interest at 5%. The defendants must also pay the costs of the action.

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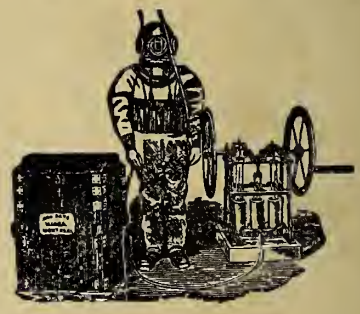

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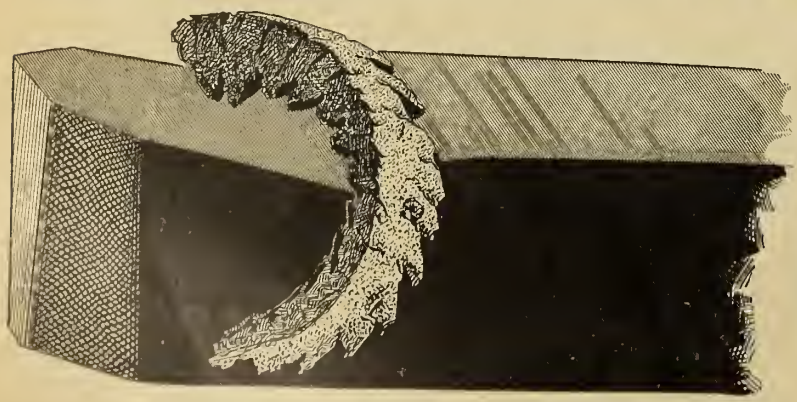

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Niagara Navigation Co.'s Meeting.

The annual meeting was held in Toronto Dec. 28, the President, E. B. Osler, in the chair. Following are extracts from the directors' report for the year ended Nov. 30:

The new issue of 1,008 shares of stock has all been subscribed and paid for, with the exception of 41 shares, which will be held in the treasury until funds are required. Bonds authorized by shareholders to be issued to provide balance of cost of new steamer and for taking up old bonds will be sold as money is required to pay on the contract. Considering the satisfactory earnings, the directors decided to write off 5% on steamers. The balance carried forward is opportune in view of the outlay for new steamer and increased expense which will attend the improved service. Work upon the new ship is progressing and it is expected she will be ready when needed next season. After providing for the dividend, interest on debentures, and writing off 5% on vessel property, the balance to credit of profit and loss account stands at $98,002.16.

ASSETS.

Steamers	$707,500.00	
Less 5% written off	35,375.00	
		$672,125.00
Real estate, wharves, etc.		52,500.00
Stores		1,449.33
Accounts receivable		2,506.13
Cash on hand and in bank		115,857.16
New stock subscribed and paid	$96,300.00	
Paid on account of steamer in course of construction	40,261.94	
Balance in bank, special account	56,038.06	
		96,300.00
		$940,737.62

LIABILITIES.

Capital stock authorized	$1,000,000.00	
Subscribed and paid		$701,300.00
Debentures outstanding, 4½%		111,000.00
Interest accrued on same		2,081.25
Accounts payable		367.34
Dividend 4% payable Jan. 2, 1906—		
Old stock	$24,200.00	
New stock	3,786.87	
		27,986.87
Balance forward		98,002.16
		$940,737.62

PROFIT AND LOSS ACCOUNT.

Balance from 1904		$88,139.60
Net earnings		102,419.43
		$190,559.03
12 months' interest on debentures		$ 4,995.00
5% written off steamers		35,375.00
Dividend 4% paid July 2, 1905	$24,200.00	
Dividend 4% payable Jan. 2, 1906	27,986.87	
		52,186.87
Balance carried forward		98,002.16
		$190,559.03

Following is a comparison of net earnings for the past five years:—1901, $100,294.21; 1902, $52,158.63; 1903, $75,686.54; 1904, $67,760.57; 1905, $102,419.43

On the motion for the adoption of the report, E. B. Osler and Barlow Cumberland warmly praised the Manager, B. W. Folger, for his excellent work, and it was pointed out that the earnings were the largest in the history of the company, having even exceeded the Pan-American year.

A by-law was passed providing that at all special and general meetings of shareholders three shall form a quorum, provided the total number of shareholders does not exceed 10, and that if there be more than 10 shareholders then there shall be added to the number for a quorum, one for each 15 additional shareholders up to 60, and one for each additional 20 shareholders over 60, provided that the quorum required shall in no case exceed 10. Persons represented by proxy are to be counted as being present. Another by-law

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Established 1854

was passed changing the date of the annual meeting from the second Tuesday in Dec. to the second Tuesday in Jan.

The directors' remuneration for 1905 was fixed at $2,000.

The directors were re-elected, the board for the current year being constituted as follows:—President, E. B. Osler; Vice-President, Barlow Cumberland; other directors, Hon. J. J. Foy, W. Hendrie, J. B. Macdonald, R. H. McBride, C. Cockshutt.

The Grounding of the Virginian.

Judgment has been given in the matter of the investigation which was held at the Admiralty Court, Quebec, on Sept. 13, 1905, before Commander O. G. V. Spain, R.N., Wreck Commissioner, assisted by Capt. John Temple, master mariner, and A. Larochelle, President Corporation of Quebec Pilots, assessors, into the causes which led to the stranding of the British S.S. Virginian on Crane Island, River St. Lawrence, on Sept. 1. The judgment, which was unanimous, is as follows:

On Aug. 20, 1905, the S.S. Virginian sailed from Antwerp, bound to Quebec and Montreal. That she proceeded on her voyage, nothing particular occurring until Aug. 31, at 2.50 p.m., when off Father Point, Pilot Jos. Pouliot, who holds a branch for and below the harbor of Quebec, was taken on board. On Sept. 1, at 1.45 a.m., the channel gas buoy was abeam, and at 1.55 a.m. Pillars Light abeam, the weather being moderately clear, but with several patches of smoke close to the water. At this time the engines were slowed and the master, on the advice of the pilot, gave orders to prepare to anchor for the remainder of the night. At about 2.40 a.m., the smoke apparently clearing away, and the lights showing brightly, the Virginian being then abeam of the Beaujeu Bank east end gas buoy, the pilot countermanded the order to anchor until the vessel was through the Narrows, the said vessel at that time was going slow, and the tide being about half flood. At 2.55 a.m. the Virginian passed close to the Beaujeu Bank west end gas and bell buoy, still going at slow speed, and the helm was starboarded in order to bring the vessel into the main channel. The ship immediately answered her starboard helm and she was "steadied" by orders of the pilot, when her head fall off to starboard again. At this point the helm was put hard a-starboard, but the engines going dead slow, the ship, no doubt on account of her slow progress through the water, refused to answer her helm; the engines were then put half-speed and the ship's head began to come round. On seeing this the pilot ordered her slow again, but at this moment she grounded and remained fast. At the time of the disaster, the pilot, captain, second officer and quartermaster were on the bridge, and the orders of the pilot, who was in charge of the navigation of the ship, were carried out in every detail. By the evidence adduced, on one other occasion some years ago, difficulty was experienced by the pilot in charge of the Virginian at the time by the ship not answering her helm promptly; but the Court finds in this particular instance Pilot Jos. Pouliot, who was in charge, is to blame for not paying proper attention to the speed of his ship, and also for not giving her sufficient starboard helm after passing the Beaujeu Bank west end gas and bell buoy. Taking into consideration Pilot Jos. Pouliot's previous excellent record of 26 years without a mishap, his certificate as a branch pilot for and below the harbor of Quebec is suspended until Sept., 1906. The Court also finds that Capt. P. F. Donnelly and officers of the Virginian are in no way to blame for the casualty.

Harbor and Canal Construction in 1905.

For the year ended June 30, 1905, there was expended on capital account by the Dominion the following amounts on canals, harbors, and survey works in connection with the projected Georgian Bay-Ottawa canal:

PUBLIC WORKS DEPARTMENT.

Montreal Harbor	$186,350.11
Port Colborne Harbor	121,187.28
Quebec Harbor	149,990.67
River St. Lawrence Ship Channel	664,677.42
Georgian Bay to Montreal Waterways survey	251,540.96
St. Andrew's Rapids	4,014.33
	$1,377,760.77

RAILWAYS AND CANALS.

Lachine	$112,460.47
Sault Ste. Marie	110,181.69
Rideau	1,565.84
Trent	333,261.75
Welland	890,457.82
Murray	100.00
Cornwall	104,093.45
Farran's Point	8,108.99
Galops	343,071.99
North Channel	93,025.89
Rapide Plat	8,109.98
St. Lawrence River	25,743.51
Soulanges	34,202.71
Williamsburg	8,209.63
	$8,197,075.51

Among the Express Companies.

The Canadian Ex. Co. has opened an office at Maple Lake, Ont.

The Western Ex. Co. is preparing to erect a concrete building for its offices at Marquette, Mich.

T. D. Stanley, Agent Canadian Ex. Co., and the G.N.W. Telegraph Co., St. Marys, Ont., has been appointed police magistrate for that town.

The Christmas and New Year's traffic is reported by officials of the Canadian and Dominion Ex. companies to have been the heaviest for years.

The Maritime Ex. Co. has adopted the Canadian Ex. Co.'s produce, or general special scale, also the scale on shipments of 500 lbs. or over. On sec. D matter destined for Lunenburg, N.S., a minimum of 7c. must be charged for each company.

The Dominion Ex. Co. has opened offices at Curzon, Harrison Mills (formerly Harrison), Harrison Siding, Jakeson, McCoy, Tromp Jct., Sumas Jct. (formerly Huntington Jct.), B.C.; Kroneau, Overee, Sask.; Canadian Northern Jct., Christie, Creeford (formerly Dooley), Dalny (formerly Corona), Gravity, Kaleida Jct., Lydiatt (formerly Eggo), Man.; Argentine, Boyce (formerly Boyce Lake), Divers, Gillies Depot (formerly Cassidy), Johnson's (formerly Johnny Lake), Rabbit Creek, Lomond, Mississauga, Wakami (formerly Winnebago), Wayland (formerly Windermere), Ont.

The Hamilton, Ont., str. Turbinia reached Kingston, Jamaica, Jan. 8, from Halifax, N.S. She experienced bad weather on the trip, and sustained considerable damage to her fittings. Repairs were made at Kingston before she commenced the run between that port and other points in Jamaica and Cuba for the winter months.

Capt. Amundsen, who has just sailed through the north-west passage, that is to say he has sailed from the Atlantic to the Pacific Ocean by the Arctic Ocean, has made a number of valuable observations in regard to the magnetic pole, etc. The value of these observations is being worked out by the authorities and will not be given out for some time. The vessel in which the passage was made grounded at one point in 9 ft. 6 in., and at no place was deep water found. The result of the trip shows that the long sought for north-west passage is not deep enough for vessels of commercial tonnage.

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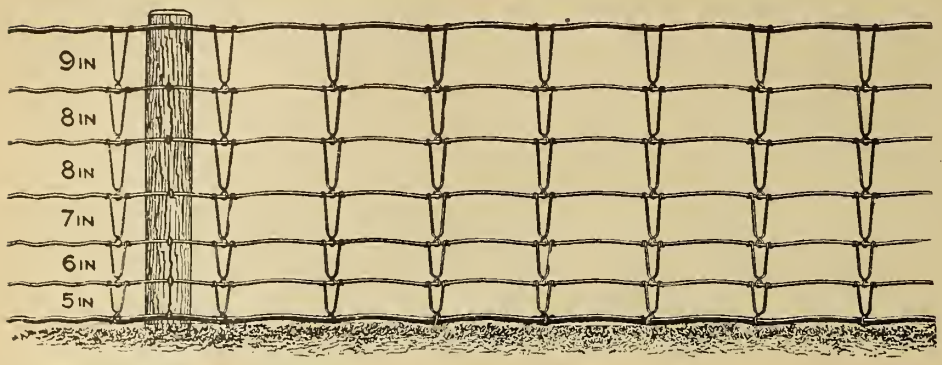

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Electric Light Line Wire, Incandescent and Flexible Cords,
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CROSS ARMS, TOP PINS, AND SIDE BLOCKS,
TORONTO.

Telegraph and Cable Matters.

The DeForest Wireless Telegraph Co. is erecting a tower and station at Toronto Junction, Ont.

The C.P.R. Telegraph Department is constructing a new telegraph line into the Nicola Valley, B.C.

Two of the operators at Cape Sable wireless telegraph station left without notice at the end of 1905, and the chief operator had to do night and day duty until new assistants were secured.

The Toronto Assessment Commissioner has increased the assessment of the C.P.R. telegraphs by $59,592, and the G.N.W. Telegraph Co.'s property in the city by $53,881, over the figures for 1905.

The Canadian Northern Telegraph Co. has completed its line into Prince Albert, Sask., where an office has been opened. It has also completed stringing an additional wire from Brandon to Neepawa, Man.

During the last weeks of 1905 an average of about 13,000 messages a day were handled at the cable office of the Western Union Telegraph Co. at North Sydney, N.S. The largest number of cable messages handled in any one day was 13,898.

The Canadian Northern Telegraph Co. has completed its line into Edmonton, Alta., and has established a night and day commercial service. Pending the completion of the station temporary accommodation was provided in a box car.

The Western Union Telegraph Co. installed an electric light and power plant at its cable station, Canso, N.S., recently. At the station of the Commercial Cable Co., at the same place, an additional cable to Great Britain, and a new cable to Newfoundland, were completed during 1905.

Fanning and Washington Islands in the South Pacific Ocean are being offered for sale under instructions from the Registrar of the British High Commissioners' Court for the Western Pacific. Fanning Island is the mid-ocean station of the British Trans-Pacific cable connecting British Columbia and Australia.

T. W. McKenzie, C.P.R. station agent, Kenton, Man., has taken out a patent in Canada for an automatic call telegraph instrument which he claims will call any office the operator may desire, sign his own call, and do it perfectly. As soon as the office called breaks in, his machine instantly stops, closes his key automatically, and allows the other operator to answer the call, or call whomsoever he desires.

The U.S. Government's cable and wireless telegraph service between Seattle and Nome and St. Michael, Alaska, is reported to be a thorough success. The wireless telegraph is operated over a section of 107 miles. During 1905 over a million words were transmitted, and as many as 2,000 words an hour have been sent. There were 134,630 messages transmitted in addition to official messages. The commercial messages were largely code, and no repetitions were asked for over the wireless section.

The Department of Marine proposes to have a stricter enforcement of the law in regard to compass adjustment, and the certificates of masters and mates than heretofore. and the inspectors at the various ports have been notified in regard to these matters. Reports from the U.S. state that lack of knowledge of the compass has been responsible for many of the losses on the Upper Lakes during 1905, and the Pittsburg Steamship Co. has directed its navigating officers to attend schools of instruction during the winter and take up the use of the compass and course correction.

General Telephone Matters.

A by-law was passed at Fort William, Ont., Jan. 1, authorizing the improvement of the municipal telephone system.

The Bell Telephone Co. has completed the stringing of a new long distance line between Kingston and Brockville, Ont.

The Wallacetown and Lake Shore Telephone Co. has been asked to extend its line through Eagle to West Lorne, Ont.

The telephone, street railway and electric lighting systems at Port Arthur, Ont., are reported to have yielded a profit of $23,145 during 1905.

The special legislation affecting the Bell Telephone Co. is responsible for a reduction in its assessment in Toronto of $250,142 from the amount at which it stood in 1905.

The Mayor of Ottawa in his inaugural address declared himself in favor of government ownership of long distance telephone lines and of municipal ownership for local lines.

The New Brunswick Telephone Co. has opened a new line from St. John, serving Point Lepreaux, Mace's Bay, Dipper Harbor, and Chance Harbor, at which points offices have been opened.

The telephone line between Penticton and Peachland, B.C., is expected to be completed early in Feb. Some delay was occasioned in the construction by reason of the non-receipt of the wire from England.

The improvement and extension of the telephone system in Edmonton, Alta., is under consideration by the city council. It is proposed to standardize the system, and to introduce an automatic switchboard.

The Little Nation Telephone Co., which has lines connecting Portage la Nation, St. Andre Avellin, Ripon, Seguin, Cheneville, Namur, and St. Emile de Suffolk, Que., has completed an arrangement for a connection with the Bell Telephone Co. at Papineauville, Que.

The Wallacetown and Lake Shore Telephone Association has its offices at Wallacetown, Ont., its officers and directors for the current year being:—President, T. Lunn; Secretary, Dr. Crane; other directors, J. Watkins, J. Steel, Geo. Braddon. A dividend of 10% was declared at the annual meeting held Dec. 29.

The Central Telephone Co. has acquired the property and charter of the Sackville Electric Light and Telephone Co., Sackville, N.B. A number of persons are interested in both companies, and are accepting stock in the Central Telephone Co., in payment for their interest in the S. E. L. and T. Co. The transfer was made Jan. 1.

The Bell Telephone Co. has given notice that it will apply for a writ of certiorari to have a revision in the Superior Court of the decision in the Montreal Recorder's Court declaring that the civic by-law imposing a tax of $5 on slot machines applied to the company's slot telephones. The Recorder fined the company $10 for operating each telephone without a license.

The Bell Telephone Co. has created a new office, that of General Manager and L. B. MacFarlane, heretofore General Superintendent at Montreal, has been appointed thereto. He is succeeded by C. F. Sise, Jr., heretofore Assistant General Superintendent. W. H. Hayes, heretofore district manager at Windsor, Ont., has been appointed District Manager for Manitoba and Saskatchewan; districts no. 3 and 4 will be combined under J. L. Richmond.

The Grand Manan Telephone Co. has been incorporated under the New Brunswick Companies' Act, with a capital of $2,000 and offices at Grand Manan, to construct telephone

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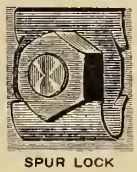
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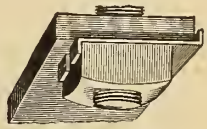
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NOTICE is hereby given that application will be made to the Parliament of Canada at its next session for an act to incorporate a company having power to construct, operate and maintain a railway and general traffic bridge across the Rainy River at or near Pither's Point near Fort Frances, and spurs or branch lines of railway to connect such bridge with adjacent lines of railway, with power also to acquire lands for such connections and for the approaches to such bridge, to lease or otherwise dispose of such bridge and connections, to unite with a company in the United States in the building of such bridge or part thereof, and such other necessary or convenient powers as may be applicable.

Z. A. LASH,
Solicitor for the Applicants.

Toronto, Ont., Dec. 30, 1905.

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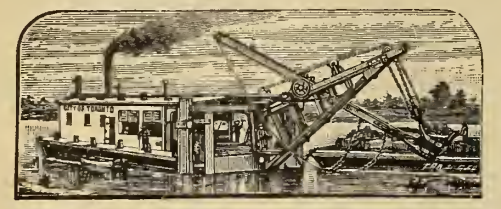

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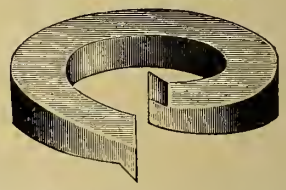

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lines principally on the island of Grand Manan, and to make connection by cable with any of the smaller islands adjacent thereto. G. E. Dalziel, Castalia; F. Ingersoll, North Head; W. A. Fraser, Woodward's Cove; I. Ingalls, Grand Harbor; J. W. Wooster, Seal Cove; all in the parish of Grand Manan, are the provisional directors.

Application will be made next session of the Manitoba Legislature for an Act incorporating a company with the title of the Independent Telephone Co. (Ltd.), with power to construct, maintain and operate a system of local, municipal and toll telephone lines, and to assist in and promote the incorporation of subsidiary companies for municipal purposes with similar powers. T. A. Potter, of Mason City, Iowa, and C. H. Webster, of Minneapolis, Minn., are interested in the proposal, and have been in Winnipeg recently in connection with the application.

The Canadian Independent Telephone Association, represented by its President, Dr. J. F. Demers, appeared before the Dominion Tariff Commission at Quebec, Dec. 29, and asked that the tariff be varied so as to enable the independent telephone companies to import their instruments, batteries and other supplies at a reasonable price. There were, he said, over 150 of these independent companies or associations in active operation in Canada, some having a dozen subscribers, others a couple of hundred or so, while some had more than a thousand. The average number of subscribers would be 60, who would all be stockholders. The smaller associations and companies were at present co-operative and largely non-commercial, that is, not run for profit, and in most of them each subscriber is a shareholder. The duty is 25%, and the purchasers also paid the freight, the supplies being sold f.o.b. at the factories in the U.S. The independent companies had tried instruments made in Canada, but, he claimed, they had to abandon them as inferior.

PURCHASING AGENTS' GUIDE.

(Continued from third page of cover.)

Dynamo and Electric Castings
American Brake Shoe & F'dry Co....Mahwah, N.J.

Economizers
Babcock & Wilcox (Ltd.).....Montreal.

Electric Car Fenders
The G. B. Meadows Wire, etc., Co.....Toronto.

Electric Car Route Signs
Acton Burrows Limited.....Toronto.

Electric Car Wire Guards
The G. B. Meadows Wire, etc., Co.....Toronto.

Electric Cranes
Canada Foundry Co.....Toronto.
E. F. Dartnell.....Montreal.
Dominion Bridge Co.....Montreal.
W. H. C. Mussen & Co.....Montreal.

Electric Ry. Brake Shoes
American Brake Shoe & F'dry Co...Mahwah, N.J.

Electric Railway Builders
F. T. Ley & Co.....Springfield, Mass.

Electric Ry. Supplies
J. A. Dawson & Co.....Montreal.

Electric Supplies
J. A. Dawson & Co.....Montreal.

Enameled Iron Signs
Acton Burrows Limited.....Toronto.

Engineers, Consulting
H. W. Breithaupt.....Berlin, Ont.

Engineers' Supplies
Canadian Fairbanks Co.....Montreal.
The Canadian Ruhber Co. of Montreal.
Williams & Wilson.....Montreal.

Engines, Automatic
Robb Engineering Co.....Amherst, N.S.

Engines, Corliss
Robb Engineering Co.....Amherst, N.S.

Engines, Gasoline
Goold, Shapley & Muir Co.....Brantford, Ont.
Ontario Wind Engine and Pump Co.....Toronto.

Engines, Hoisting
M. Beatty & Sons.....Welland, Ont.

Engines, Stationary and Marine
Canada Foundry Co.....Toronto.
H. W. Petrie.....Toronto.
Polson Iron Works.....Toronto.
Robh Engineering Co.....Amherst, N.S.

Engines, Steam
Williams & Wilson.....Montreal.

Engraving
Rolph & Clark (Ltd.).....Toronto.

Engraving (Copper and Steelplate)
Rolph & Clark (Ltd).....Toronto.

Excavators
Vulcan Iron Works.....Toledo, Ohio.

Express Office Signs
Acton Burrows Limited.....Toronto.

Feedwater Heaters
Canadian Fairhanks Co.....Montreal.
H. W. Petrie.....Toronto.
Rohb Engineering Co.....Amherst, N.S.
Williams & Wilson.....Montreal.

Fencing
Canada Foundry Co.....Toronto.
McGregor, Banwell Fence Co....Walkerville, Ont.
New Brunswick Wire Fence Co....Moncton, N.B.
Owen Sound Wire Fence Co....Owen Sound, Ont.
Page Wire Fence Co.....Walkerville, Ont.

Fence Staples
New Brunswick Wire Fence Co....Moncton, N.B.

Fire Brick
W. H. C. Mussen & Co.....Montreal.

Fire Escapes
The G. B. Meadows Wire, etc., Co.....Toronto

Fire Insurance
Dale & Co.....Montreal.

Fireproof Building Material
A. B. Ormshy Limited.....Toronto.

Flags
The Hudson's Bay Co.....

Flour
The Hudson's Bay Co.....

Forgings
Canada Car Co.....Montreal.
Crossen Car Mfg. Co.....Cohourg, Ont.
General Railway Signal Co.....Buffalo, N.Y
Standard Steel Works.....Philadelphia, Pa

Gasoline Engines
Canadian Fairhanks Co.....Montreal.

Gas Buoys
Willson Gas Buoy Co.....Ottawa.

Gas Pipe (Cast Iron)
Gartshore-Thompson Pipe & F'dry Co., Hamilton.

Gates
Canada Foundry Co.....Toronto.
McGregor, Banwell Fence Co....Walkerville Ont.
New Brunswick Wire Fence Co....Moncton, N.B.
Owen Sound Wire Fence Co....Owen Sound, Ont.
Page Wire Fence Co.....Walkerville, Ont.

Gears (Heavy)
W. Kennedy & Sons (Ltd.)....Owen Sound, Ont.

Generators
Charles F. Johnson.....Buffalo, N.Y.

Grain Elevators
John S. Metcalfe Co.....Chicago, Ill.

Groceries
The Hudson's Bay Company.....

Hammers
James Smart Mfg. Co.....Brockville, Ont.

Handcars
Crossen Car Mfg. Co.....Cobourg, Ont.
F. H. Hopkins & Co.....Montreal.
W. H. C. Mussen & Co.....Montreal.
Toronto Pressed Steel Co.....Toronto.

Hardware
The Hudson's Bay Company.....

Headlights
N. L. Piper Railway Supply Co.....Toronto

Headlinings
Crossen Car Mfg. Co.....Cobourg, Ont.

Hoppers, Car, Wet or Dry
Duner Co.....Chicago, Ill.

Hose, Air Brake and Steam
The Canadian Ruhber Co. of Montreal.

Hose, Fire
The Canadian Rubber Co. of Montreal

Hose, Suction
The Canadian Rubber Co. of Montreal.

Hydrants
Kerr Engine Co.....Walkerville, Ont.

Illustrations
Acton Burrows Limited.....Toronto.

Inspection Cars
Canada Cycle and Motor Co...Toronto Junc., Ont.

Inspections
R. W. Hunt & Co.....Montreal.
H. Jarvis & Co.....Chicago, Ill.

Instruments, Surveying and Engineering
Eugene Dietzgen Co.....New York.
James Foster.....Toronto.

Interlocking and Signalling
General Railway Signal Co.....Buffalo, N.Y.

Interlocking Signals
Montreal Steel Works.....Montreal.

Iron
A. C. Leslie & Co.....Montreal.

Iron Fencing
The G. B. Meadows Wire, etc., Co.....Toronto.

Iron, Pig
John McDougall & Co.....Montreal.

Iron Signs
Acton Burrows Limited.....Toronto.

Jacks
James Smart Mfg. Co.....Brockville, Ont.

Japans
McCaskill, Dougall & Co.....Montreal.

Journal Bearings
Canada Foundry Co.....Toronto.
Canadian Bronze Co.....Montreal.
Crossen Car Mfg. Co.....Cobourg, Ont.
Kerr Engine Co.....Walkerville, Ont.
Jas. W. Pyke & Co.....Montreal.
St. Thomas Brass Co.....St. Thomas, Ont.

Journal Boxes
N. J. Holden Co.....Montreal.

Lager Beer, &c.
E. L. Drewry.....Winnipeg.

Lamps, Incandescent
Canadian Westinghouse Co.....Hamilton, Ont.

Lamps and Lanterns
The Hudson's Bay Company.....
The Hiram L. Piper Co.....Montreal.
N. L. Piper Railway Supply Co.....Toronto.

Lathes
The John Bertram Sons Co.....Dundas, Ont.
H. W. Petrie.....Toronto.
Williams & Wilson.....Montreal.

Launches
Polson Iron Works.....Toronto.

Lights, Contractors' and Wrecking
F. H. Hopkins & Co.....Montreal.
W. H. C. Mussen & Co.....Montreal.

Lithographing
Rolph & Clark (Ltd.).....Toronto.

Locomotive Driver Brake Shoe
American Brake Shoe & F'dry Co..Mahwah, N.J.
Canadian Iron and Foundry Co.....Montreal.

Locomotive Lagging and Covering
Canadian Fairhanks Co.....Montreal.

Locomotives (Compressed Air)
Baldwin Locomotive Works....Philadelphia, Pa.
Canadian Locomotive Co.....Kingston, Ont.
Locomotive and Machine Co. of Montreal.

Locomotives (Electric)
Baldwin Locomotive Works...Philadelphia, Pa.
Canada Foundry Co.....Toronto.
Locomotive and Machine Co. of Montreal.

Locomotives (Logging)
Canadian Locomotive Co.....Kingston, Ont
Lima Locomotive and Machine Co..Lima, Ohio.

Locomotives (Rack)
Baldwin Locomotive Works...Philadelphia, Pa.
Canadian Locomotive Co.....Kingston, Ont.
Locomotive and Machine Co. of Montreal.

Locomotives (Steam)
Baldwin Locomotive Works....Philadelphia, Pa.
Canada Foundry Co.....Toronto.
Canadian Locomotive Co.....Kingston, Ont.
F. H. Hopkins & Co.....Montreal.
Charles F. Johnson.....Buffalo, N.Y.
The W. H. Kelson Co.....Montreal.
Lima Locomotive and Machine Co..Lima, Ohio.
Locomotive and Machine Co. of Montreal

Locomotive Stack Netting
The G. B. Meadows Wire, etc., Co.....Toronto.

Machine Tools
W. Ahbott.....Montreal.
Canadian Fairhanks Co.....Montreal.
H. W. Petrie.....Toronto.
Williams & Wilson.....Montreal.

Machine Screws, Set Cap and Planer
John Morrow Machine Screw Co.....Ingersoll.

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Sheriffs Mfg. Co.....Milwaukee, Wis.

Machinery Repairs, Marine
Sheriffs Mfg. Co.....Milwaukee, Wis.

Manganese Steel Castings
Montreal Steel Works.....Montreal.

Manhole Frames and Covers
American Brake Shoe & F'dry Co...Mahwah, N.J.
Canadian Iron and Foundry Co.....Montreal.

(Continued on page 119.)

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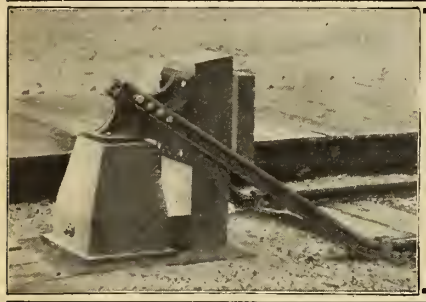

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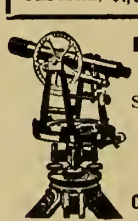

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PURCHASING AGENTS' GUIDE.

(*Continued from page 117.*)

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Rolph & Clark (Ltd.)..... Toronto.

Mats and Matting
The Canadian Ruhber Co. of Montreal.

Metals
A. C. Leslie & Co.....Montreal.

Metal Studding
A. B. Ormshy Limited..... Toronto.

Metal Windows
A. B. Ormshy Limited..... Toronto.

Milepost Numbers
Acton Burrows Limited.....Toronto.

Milling Cutters
W. Ahhott.....Montreal.
Williams & Wilson.....Montreal.

Milling Machines
The John Bertram Sons Co.....Dundas, Ont.
H. W. Petrie.....Toronto.

Mills, Boring and Turning
The John Bertram Sons Co.....Dundas, Ont.
H. W. Petrie..... Toronto.

Mill Tools and Supplies
J. A. Dawson & Co.....Montreal.

Motor Cars
Canada Cycle & Motor Co....Toronto Junc., Ont.

Motors
Charles F. Johnson.....Buffalo, N.Y.

Nickel
The Orford Copper Co.....New York.

Nickel for Nickel Steel
The Orford Copper Co.....New York.

Numbers
Acton Burrows Limited.....Toronto.

Nut Locks
Jones Positive Nut Lock Co..... Chicago, Ill.
Positive Lock Washer Co.....Newark, N.J.

Nuts, Cold Pressed
John Morrow Machine Screw Co.....Ingersoll.

Nuts, Square and Hexagon
Canada Foundry Co.....Toronto.
Montreal Rolling Mills Co.....Montreal.
Toronto Bolt and Forging Co.....Toronto.

Oakum
The Hudson's Bay Company.. .....

Office Desks
Canadian Office & SchoolFurnitureCo.,Preston,Ont.

Office Fittings
Canadian Office & SchoolFurnitureCo.,Preston,Ont.

Office Railings
The G. B. Meadows Wire, etc., Co.....Toronto.

Office Signs
Acton Burrows Limited.....Toronto.

Oils
Galena Signal Oil Co., Franklin, Pa., and Toronto.

Packing
The N. L. Piper Railway Supply Co.....Toronto.
Williams & Wilson.....Montreal.

Packing, High Pressure Sheet
The Canadian Rubber Co. of Montreal.

Packing, Piston
The Canadian Ruhber Co. of Montreal.

Paints, Acid Proof and Anti-rust
American Asphaltum & Ruhber Co...Chicago, Ill.

Paints, Asphaltum
American Asphaltum & Rubber Co...Chicago, Ill.

Paints, Bridge
American Asphaltum & Ruhber Co...Chicago, Ill.

Paints, Dampresisting
E. F. Dartnell.....Montreal.

Paints, Locomotive Front end
American Asphaltum & Ruhber Co...Chicago, Ill.

Paints, Mineral Rubber
American Asphaltum & Rubher Co...Chicago, Ill.

Paints, Structural Iron
American Asphaltum & Rubber Co...Chicago, Ill.

Passenger Cars
American Palace Car Co..New York and Toronto.

Pinch Bars
The N. L. Piper Railway Supply Co.....Toronto.

Pipe and Pipe Coverings
W. C. Baker.....New York.

Pipe Covering
Canadian Fairbanks Co.....Montreal.
Mica Boiler Covering Co.....Montreal.

Piston Rods
B. M. Jones & Co., Inc....Boston and New York.

Planers
The John Bertram Sons Co.....Dundas, Ont.
H. W. Petrie.....Toronto.

Ploughs, Contractors'
W. H. C. Mussen & Co.....Montreal.
Toronto Pressed Steel Co.....Toronto.

Pneumatic Tools
N. J. Holden Co.....Montreal.

Porter
E. L. Drewry.....Winnipeg.

Portable Boilers
Babcock & Wilcox (Ltd.).....Montreal.
Canada Foundry Co.....Toronto.
Rohh Engineering Co.....Amherst, N.S.

Printing
The Hunter, Rose Co.....Toronto.
The Mail Job Printing Company.....Toronto.

Propeller Wheels
W. Kennedy & Sons (Ltd.)....Owen Sound, Ont.
Sheriffs Manufacturing Co..... Milwaukee, Wis.

Pumps
Canadian Fairhanks Co.....Montreal.
Canada Foundry Co.....Toronto.
Goold, Shapley & Muir Co.....Brantford, Ont.
James Smart Mfg. Co.....Brockville, Ont.

Pumps (Centrifugal)
M. Beatty & Sons.....Welland, Ont

Punching and Shearing Machines
The John Bertram Sons Co.....Dundas. Ont.

Rail Benders, Roller
F. H. Hopkins & Co.....Montreal.
Montreal Steel Works.....Montreal.

Rails (new)
Drummond, McCall & Co.....Montreal.
F. H. Hopkins & Co.....Montreal.
J. J. Gartshore.....Toronto.

Rails (for relaying)
F. H. Hopkins & Co.....Montreal.
J. J. Gartshore.....Toronto.
Charles F. Johnson .....Buffalo, N.Y.
T. A. Morrison & Co.....Montreal.
W. H. C. Mussen & Co.....Montreal.
Jas. W. Pyke & Co.....Montreal.

Railway Bridges
Hamilton Bridge Works.....Hamilton, Ont.

Railway Interlocking
General Railway Signal Co.....Buffalo, N.Y.

Rail Joints
N. J. Holden Co.....Montreal.

Railway Pile Drivers
F. H. Hopkins & Co .....Montreal.
W. H. C. Mussen & Co.....Montreal.

Railway Signalling
General Railway Signal Co.....Buffalo, N.Y.

Railway Supplies
J. A. Dawson & Co.....Montreal.
Canadian Fairbanks Co.....Montreal.
F. H. Hopkins & Co.....Montreal.
The W. H. Kelson Co.....Montreal.
The Hiram L. Piper Co.....Montreal.
The N. L. Piper Railway Supply Co.....Toronto.

Reamers
W. Ahbott.....Montreal.

Refrigerators
Geo. R. Prowse.....Montreal.

Rivets, Boiler, Bridge and Structural
Canada Foundry Co.....Toronto.
Montreal Rolling Mills Co.....Montreal.
Toronto Bolt and Forging Co.....Toronto.

Rolled Wheels
Standard Steel Works.....Philadelphia, Pa.

Rolls, Plate Bending
The John Bertram Sons Co.....Dundas, Ont.

Roofers
A. B. Ormsby Limited..... Toronto.

Roof Trusses
Canada Foundry Co.....Toronto.
Canadian Bridge Co.....Walkerville, Ont.
Dominion Bridge Co.....Montreal.
Hamilton Bridge Works.....Hamilton, Ont.

Roofing Pitch
American Asphaltum & Ruhber Co...Chicago, Ill.

Roofing, Ready
American Asphaltum & Rubber Co...Chicago, Ill.

Roofs, Car
American Asphaltum & Rubber Co...Chicago, Ill.

Rope
The Hudson's Bay Co.....
J. Leckie Limited.....Toronto.

Rotary Snow Ploughs
Crossen Car Mfg. Co.....Cobourg Ont.

Rubber Tiling, Interlocking
The Canadian Rubher Co. of Montreal.

Saw Steel
Montreal Steel Works.. .....Montreal.

Scrapers (Wheel and Drag)
F. H. Hopkins & Co.....Montreal.
W. H. C. Mussen & Co.....Montreal.
Toronto Pressed Steel Co.....Toronto.

Screws, Coach and Lag
Montreal Rolling Mills Co.....Montreal.
Toronto Bolt and Forging Co..... Toronto.

Semaphore Arms
Acton Burrows Limited.....Toronto.

Semaphores
The N. L. Piper Railway Supply Co.....Toronto.

Sewer Pipe (Cast Iron)
Gartshore-Thompson Pipe & F'dry Co..Hamilton.

Shaking Grates
Babcock & Wilcox (Ltd.).....Montreal.

Shaping Machines
The John Bertram Sons Co. .....Dundas, Ont.

Ship Lamps
The Hiram L. Piper Co..... Montreal.
The N. L. Piper Railway Supply Co.....Toronto.

Ships
Polson Iron Works.....Toronto.

Shovels
The Hudson's Bay Co.....

Side Bearings
Simplex Railway Appliance Co.....Montreal.

Signal House Numbers
Acton Burrows Limited.....Toronto.

Signals
General Railway Signal Co.....Buffalo, N.Y.
The Hiram L. Piper Co..... Montreal.
N. L. Piper Railway Supply Co.....Toronto.

Signs
Acton Burrows Limited.....Toronto.

Skylights
A. B. Ormshy Limited..... Toronto.

Slack Adjusters
Chicago Railway Equipment Co.....Chicago, Ill.

Sledges
James Smart Mfg. Co.....Brockville, Ont.

Slotting Machines
The John Bertram Sons Co.....Dundas, Ont.

Smoke Jacks
Paul Dickinson..... Chicago, Ill.

Snow Ploughs
Crossen Mfg. Co.....Cohourg, Ont.
Charles F. Johnson .....Buffalo, N.Y.
Rhodes, Curry & Co.....Amherst, N.S.

Specialties in Brass and Iron Wire
The G. B. Meadows, Wire, etc., Co.....Toronto.

Speedicut High Speed Steel
Montreal Steel Works.....Montreal.

Spikes, Railway, Ship or Pressed
Montreal Rolling Mills Co.....Montreal.
Toronto Bolt and Forging Co.....Toronto.

Springs
Montreal Steel Works.....Montreal.
Standard Steel Works.....Philadelphia, Pa.

Station and Tower Heaters
W. C. Baker.....New York.

Stationery
Rolph & Clark (Ltd.).....Toronto.

Station Name Signs
Acton Burrows Limited.....Toronto.

Station Seats
James Smart Mfg. Co.....Brockville, Ont.

Staybolt Iron
B. M. Jones & Co., Inc....Boston and New York.

Steam Attachments for Car Heating
W. C. Baker.....New York.

Steam Couplers
Safety Car Heating and Lighting Co....New York.

Steam Hammers
The John Bertram Sons Co.....Dundas, Ont.

Steam Shovels
M. Beatty & Sons.....Welland, Ont.
F. H. Hopkins & Co.....Montreal.
Charles F. Johnson..... Buffalo, N.Y.
W. H. C. Mussen & Co.....Montreal.
Vulcan Iron Works .....Toledo, Ohio.

Steamship Supplies
The W. H. Kelson Co.....Montreal.

Steamships
Polson Iron Works.....Toronto.

Steamship Signs
Acton Burrows Limited.....Toronto.

Steam Steering Engines for Tugs
Sheriffs Mfg. Co.....Milwaukee, Wis.

Steel
W. Abbott.....Montreal.
F. H. Hopkins & Co.....Montreal
Wm. Jessop & Sons.....Sheffield, Eng.
B. M. Jones & Co., Inc....Boston and New York.
A. C. Leslie & Co.....Montreal.
Williams & Wilson.....Montreal.

Steel Buildings
Canada Foundry Co.....Toronto.
Canadian Bridge Co.....Walkerville, Ont.
Dominion Bridge Co.....Montreal.
Hamilton Bridge Works.....Hamilton, Ont.

Steel for Springs
James Hutton & Co.....Montreal.

Steel, Nickel for Nickel
The Orford Copper Co.....New York.

Steel Plate
Jas. W. Pyke & Co.....Montreal.

Steel Rolling Doors
W. H. C. Mussen & Co.....Montreal.
A. B. Ormsby Limited.....Toronto.

Steel Tyres
James Hutton & Co.....Montreal.
Jas. W. Pyke & Co.....Montreal.

Stokers, Mechanical
Babcock & Wilcox (Ltd.).....Montreal.

Stoves
James Smart Mfg. Co.....Brockville, Ont.

Structural Metal Work
Canada Foundry Co.....Toronto.
Canadian Bridge Co.....Walkerville, Ont.
Dominion Bridge Co.....Montreal.
Hamilton Bridge Works.....Hamilton, Ont.
Locomotive and Machine Co. of Montreal.
Jas. W. Pyke & Co.....Montreal.

Superheaters
Babcock & Wilcox (Ltd.).....Montreal.

Switches
Montreal Steel Works.....Montreal.

Switch Lamps
The N. L. Piper Railway Supply Co.....Toronto.

Switch Ropes
The B. Greening Co.....Hamilton, Ont.

Switch Targets
Acton Burrows Limited.....Toronto.

Tanks and Tank Fixtures
Canadian Fairbanks Co.....Montreal.
Canada Foundry Co.....Toronto.
Goold, Shapley & Muir Co.....Brantford, Ont.
Ontario Wind Engine and Pump Co.....Toronto.

Telegraph and Telephone Office Signs
Acton Burrows Limited.....Toronto.

Tents
J. Leckie Limited.....Toronto.

Terra Cotta Fireproofing
E. F. Dartnell.....Montreal.

Tests
R. W. Hunt & Co.....Montreal.
H. Jarvis & Co.....Chicago, Ill.

Ticket Wickets
The G. B. Meadows Wire, etc., Co.....Toronto.

Tie Plates
Montreal Rolling Mills Co.....Montreal.

Tiling, Glass
E. F. Dartnell.....Montreal.

Time Table Racks
The G. B. Meadows Wire, etc., Co.....Toronto.

Tires
Standard Steel Works.....Philadelphia, Pa.

Tools
James Smart Mfg. Co.....Brockville, Ont.

Tool Steel
W. Jessop & Sons.....Sheffield, Eng.
B. M. Jones & Co., Inc ...Boston and New York.
A. B Leslie & Co.....Montreal.
Montreal Steel Works.....Montreal

Towers
Goold, Shapley & Muir Co.....Brantford, Ont.

Track Jacks
Canadian Fairbanks Co.....Montreal.
F. H. Hopkins & Co.....Montreal.
Montreal Steel Works.....Montreal.
W. H. C. Mussen & Co.....Montreal.
A. O. Norton.....Coaticook, Que.

Trackiaying Lorries
Crossen Car Mfg. Co.....Cobourg, Ont.
F. H. Hopkins & Co.....Montreal.

Tracklaying Machinery
D. F. Holman Ry. Tracklayer Co.....Chicago, Ill.

Track Tools
N. J. Holden Co.....Montreal.
F. H. Hopkins & Co.....Montreal.
Montreal Steel Works.....Montreal.
W. H. C. Mussen & Co.....Montreal.

Tramway Equipment
J. J. Gartshore.....Toronto.

Trucks
James Smart Mfg. Co.....Brockville, Ont.

Trucks (Electric Car)
Baldwin Locomotive Works....Philadelphia, Pa.
Canada Foundry Co.....Toronto.
Charles F. Johnson.....Buffalo, N.Y.
Montreal Steel Works.....Montreal.

Trucks (Railroad and Warehouse)
Canadian Fairbanks Co.....Montreal.
Toronto Pressed Steel Co.....Toronto.

Turbine Waterwheels
W. Kennedy & Sons (Ltd.).... Owen Sound, Ont.

Turnbuckles
Montreal Steel Works.....Montreal.

Turntables
Canada Foundry Co.....Toronto.
Canadian Bridge Co.....Walkerville, Ont.
Dominion Bridge Co.....Montreal.
Hamilton Bridge Works.....Hamilton, Ont.
Charles F. Johnson.....Buffalo, N.Y.

Valves, Brass Gate
Kerr Engine Co.....Walkerville, Ont.

Valves, Brass Globe
Kerr Engine Co.....Walkerville Ont.

Valves, Iron and Brass
Canada Foundry Co.....Toronto.
Canadian Fairbanks Co.....Montreal.

Valves, Iron Gate
Kerr Engine Co.....Walkerville, Ont

Valves, Rubber
The Canadian Rubber Co. of Montreal.

Varnishes
McCaskill, Dougall & Co.....Montreal.

Ventilators
Paul Dickinson.....Chicago, Ill.

Vessels
Polson Iron Works.....Toronto.

Washers
Montreal Rolling Mills Co.....Montreal.

Waste
N. L. Piper Railway Supply Co.....Toronto.

Water Filters
Geo. R. Prowse.....Montreal.

Water Pipe (Cast Iron)
Gartshore-Thompson Pipe & F'dry Co. Hamilton.

Water Softeners
Babcock & Wilcox (Ltd.).....Montreal.

Wheelbarrows
F. H. Hopkins & Co.....Montreal.
Toronto Pressed Steel Co.....Toronto.

Wheels, Car
Canada Car Co.....Montreal.
Canadian Iron and Foundry Co.....Montreal.
John McDougall & Co.....Montreal.
Jas. W. Pyke & Co.....Montreal.
Rhodes, Curry & Co.....Amherst, N.S.
Standard Steel Works.....Philadelphia, Pa.

Wheels, Locomotive
Canadian Iron and Foundry Co.....Montreal.
John McDougall & Co.....Montreal.

Wheels, rolled, solid forged
Standard Steel Works.....Philadelphia, Pa.

Wheels, steel tired
Standard Steel Works.....Philadelphia, Pa.

Windmills
Canadian Fairbanks Co.....Montreal.
Ontario Wind Engine and Pump Co.....Toronto.

Wire and Wire Rope
Dominion Wire Rope Co.....Montreal.
The B. Greening Co.....Hamilton, Ont.
A. C. Leslie & Co.....Montreal.
W. H. C. Mussen & Co.....Montreal.
The Wire and Cable Co.....Montreal.

Wire Cloth
The B. Greening Co.....Hamilton, Ont.

Wire, Copper
E. F. Phillips Electrical Works, Ltd.....Montreal
The Wire and Cable Co.....Montreal.

Wire, Electric
Canadian General Electric Co.....Toronto.
E. F. Phillips Electrical Works, Ltd....Montreal.
The Wire and Cable Co.....Montreal.

Wire, Insulated Copper
Canadian General Electric Co.....Toronto.
E. F. Phillips Electrical Works, Ltd.....Montreal.
The Wire and Cable Co.....Montreal.

Wire Lockers (Employes)
The G. B. Meadows Wire, etc., Co.....Toronto.

Wire, Telegraph and Telephone
E. F. Phillips Electrical Works, Ltd....Montreal.
The Wire and Cable Co.....Montreal.

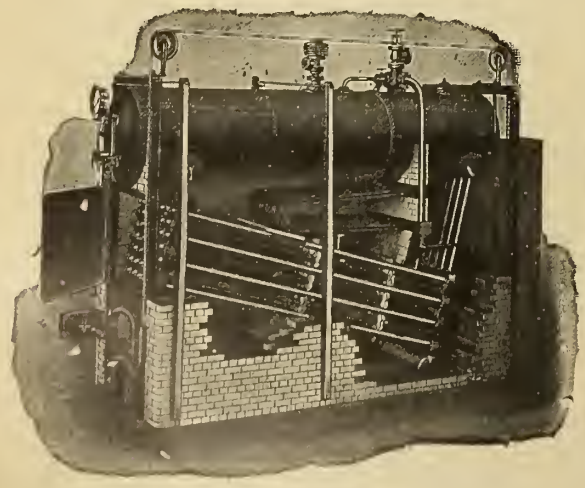
Wire, Transmission and Trolley
The Wire and Cable Co.....Montreal

Woodworking Machinery
H. W. Petrie.....Toronto.

Wrecking Cranes
W. H. C. Mussen & Co.....Toronto.

Wrought Steel Piping
Canada Foundry Co.....Toronto.

Yachts
Polson Iron Works.....Toronto.



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SUPERHEATERS

Over 1,250,000 H.P. now in use.

Can be adapted to existing plants and to all types of boilers, effecting greateconomy in fuel consumption.

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HEAD OFFICE FOR CANADA

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BRANCH: 114 King Street West, Toronto.

See Purchasing Agents' Guide on third page of cover

See Alphabetical Index to Advertisements on page 151.

THE

Railway and Marine World

With which are incorporated The Western World and The Railway and Shipping World, Established 1890

Devoted to Steam and Electric Railway, Marine, Grain Elevator, Express, Telegraph, Telephone and Contractors' interests

Old Series, No. 179. New Series, No. 97. TORONTO, CANADA, MARCH, 1906, 10 Cents a Copy. $1 a Year.

The Railway Stores Department and its Relationship to Other Departments.

By J. H. Callaghan, General Storekeeper, C.P.R.

The various suggestions as to system, method, principle, etc., offered in this paper are drawn up in the main from the method which is in vogue on the C.P.R., but which should in a large measure be applicable to any well-organized railway system or large manufacturing industry. The relationship of the stores department to all other departments on any railway system is a matter of vital import, and when it is taken into consideration that this relationship spreads over an area incorporating officers from the section foreman to president it will be readily understood no little amount of time, thought, tact, and diplomacy must be given apart from the established system of handling the department's business to engender or promote harmony between the stores and the various other officers that the best results may be obtained. There are many ways in which this good-fellowship may be brought about. The best and shortest in my experience is, being able to fill orders for material promptly when and where required. Needless to say, this is a condition much desired by all good store-keepers, but, from various conditions, particularly in Canada, where the markets are not yet in form to allow of this golden rule, it is not always possible to fill requisitions as promptly as the storekeeper would like, and it is from delays to work consequent upon the inability of the storekeeper to supply the necessary material at a time when it is urgently required that much of the dissatisfaction between the stores and other departments is brought about. Fortunately, conditions are changing much for the better, and we are gradually drawing nearer to the time I hope when the much hackneyed phrase "Waiting material," will be a thing of the past. In anticipating the needs and requirements of a great system like the C.P.R., the hearty assistance and co-operation of the mechanical departments' officers, by this I mean the locomotive and car departments, is of much value and to be desired, andno effort is spared to bring this condition about. I would like to say something about the relationships existing between the stores and operating officers but, on account of the length of this paper, I am with much reluctance obliged to reserve the remarks.

Our general storehouse is located at the Angus main shops at Montreal for many reasons, some of which follow:—This location allows of local distribution to the various shops, as well as shipments to the line from the one stock and by one staff. By this concentration the work is handled upon such a large scale as to allow of departmentalizing it and placing efficient men in these departments to properly conduct the specific lines of material carried in them. The offices of the Superintendent of Motive Power and Master Car Builder are located at the main shops, so also is that of the General Storekeeper, and this condition of nearness allows of prompt action being taken at a time when delays to cars or locomotives for want of certain materials occurs. I have found in my experience railway officers can do more satisfactory business in a ten minute chat than is often done in a week's correspondence. I might continue indefinitely to cite my reasons for this location of the general store, but as I deal later on in this paper with the different departments which go to make up the whole the few reasons offered will in a measure bear me out.

WILLIAM WHYTE,
Second Vice-President Canadian Pacific Railway.

The area of our lumber piling yard is something like 40 acres, which is practically divided into two sections, one being used for material required for the construction of sleepers, coaches, etc., and the other for freight car equipment, orders, and repairs. The yard as laid out has 25 tracks, from which cars can be loaded or unloaded conveniently. Ample facilities for the drying of lumber are furnished by two kilns, which are located in the lumber yard, and which have a holding capacity of 140,000 and 280,000 feet respectively. Then again, there is a shed provided for the kiln-dried lumber with a capacity of 500,000 feet. In addition to inspecting, culling, and tallying all lumber as it comes into the yard, the greatest care must be exercised in seeing that the same is properly and neatly piled for air drying and secured as far as possible from the effects of the weather. None the less important, however, is the matter of inspection and tallying, and to give you some idea as to the accuracy we aim at in this connection the following concise outline of our method may be of interest. When a car of lumber arrives in yard and is placed at proper piling ground, a checker and a proper complement of help is detailed to unload it; when completed the tally card is handed into the lumber office, where it is properly compared with shipper's advice, and if any material discrepancy is found it is at once rechecked by the foreman or office man (often both) to verify the correctness of the tally. All differences such as culls, shortages, and overages are shown on face of invoice before same is passed for payment, and the final settlement of such differences is arranged between the General Purchasing Agent and shipper. A correct record of all tallies is kept in a book for the purpose, which shows car number and initial, date of receipt, description of material, number of pieces and feet, price, requisition number, name of shipper, and all details in connection therewith.

The method of supplying lumber from the yard to the various shops is somewhat as follows:—Memo orders are sent to the yard by the different foremen, who are properly authorized to issue them and given to the checkers who deal out the amount required and charge same to the account shown on the order. These orders are promptly turned into the lumber office, where they are entered into a book, from which statements are made daily and sent the General Car Foreman for examination as to their correctness. From these statements proper shop requisition forms are made and sent the lumber foreman, who checks them with his record and passes them on to the office, where they are charged up to the various accounts for which they were issued.

The stock books carried in the lumber yard

Galena-Signal Oil Company,

Franklin, Pa., and Toronto, Ont.

Sole manufacturers of the celebrated Galena COACH, ENGINE and CAR OILS, and SIBLEY'S PERFECTION VALVE and SIGNAL OILS.

Guarantee cost per thousand miles, for from one to five years, when conditions warrant it.

Maintain Expert Department, which is an organization of skilled railway mechanics of wide and varied experience.

Services of Experts furnished free of charge to patrons interested in the economical use of oils.

STREET RAILWAY LUBRICATION A SPECIALTY.

Please write home office for further particulars.

CHARLES MILLER,

PRESIDENT.

are drawn up on much the same lines as the standard stock book in general use in the department, with the exception that receiving and day books take the place of stock cards. At the end of each month the stock books are extended and balanced, the balance showing the amount on hand of each item of lumber in stock. From these books a detailed statement is prepared and sent to the office of the General Storekeeper showing the stock in pieces and feet and total value of same. A duplicate of this statement is also sent the Master Car Builder or General Car Foreman for his information.

As an illustration of the import attaching to this detail of the stores department, the following figures are interesting:—For the 10 months ended Oct. 31, 1905, there were no less than 2,350 cars of lumber unloaded and piled, a total of 28,188,000 ft., or an average of 113,000 ft. daily. The quantity delivered to shops and shipped on the line for the same period amounted to about 4,000,000 ft. in excess of these figures, or an average of 130,000 ft. per day. The stock carried for all purposes during the present year has varied from 8,000,000 to 13,000,000 ft., board measure, of which quantity 1,500,000 are carried for the purpose of supplying outside points and repair work, the balance for new equipment orders. The woods carried in this stock range from the ordinary spruce, pine, birch, and oak used for freight car construction, to the rarest imported woods used in finishing the up-to-date passenger rolling stock of the company.

Up to the present we have not been provided with a proper plate rack, but an appropriation covering the cost of one has been approved, and we expect in a short time to have our steel plates and boiler tubes properly housed. This expensive class of material is now carried at the west end of our locomotive and erecting machine shop, where proper piling ground has been laid out for it and excellent trackage for the prompt and economical handling of cars is available. We have in this yard a self-propelling crane of five ton capacity working most of its time loading and unloading and placing tires, wheels, axles, etc. This machine has practically done away with the services of a labor gang heretofore employed in this yard. A flat car loaded with an assortment of steel plates can now be unloaded and the various sizes of plates put on the proper piles in something like 30 minutes.

Tires are unloaded from cars by means of a chain sling attached to the crane and are swung round into their respective groups without double handling. Axles, wheels, bolsters and brake beams are handled in much the same manner. The crane is sometimes used for shunting purposes, and I have known months when 80 to 100 cars have been moved by it, so that our switching problem in so far as this part of our yard is concerned does not affect us very much.

The stock book incorporating the contents of this yard is the same as is in general use, and it is from this record the statement of locomotive tires, steel plates, etc., furnished the Superintendent of Motive Power monthly is made.

Our wheel foundry has capacity for daily output of 300 wheels, and during the past year 80,204 wheels were turned out of it. In order to allow of this large output something like the following raw metals were used:—Charcoal pig iron 9,506 tons, Malleable scrap 700 tons, scrap wheels 12,680 tons; total 22,680 tons. The cast wheels for the entire system are shipped from this foundry, so also are wheels for new rolling stock orders.

In the Grey iron foundry we have a daily output of 30 tons, and during the past year 8,373 tons of all kinds and patterns of castings have been delivered to the shops and shipped from one end of the road to the other. Apart from coke, sand, etc., 8,626 tons of metals were used in turning out these castings.

The entire intake and output of these foundries is charged to the General Storekeeper, so that great care is necessarily exercised in checking shop deliveries and line shipments to see that proper credits accrue to the General Storekeeper in his earnest endeavor to reduce his stock balance. The method of record keeping for these foundries is the same as is in use in every other unit of the department.

The handling of new and second-hand rails and fastenings is a subject which, while coming under and being a part of the General Storekeeper's business on the C.P.R., is not so arranged on many other railways, so that I will treat this detail more from a C.P.R. standpoint than otherwise. During 1905 the company placed orders for 81,000 tons of standard 80 lb. rails, say 650 miles, and the necessary fastenings. This order covered shipments for the company's new lines in Ontario, together with allotments for the various Eastern Line Divisions, while the bulk of the shipments were made to Western Lines. Our method of handling new rails, the details of which would be of little interest to you, worked so satisfactorily last season that this deal has long since been cleaned up, and we are now working on an order for 70,000 tons, being part of 1906 season's orders.

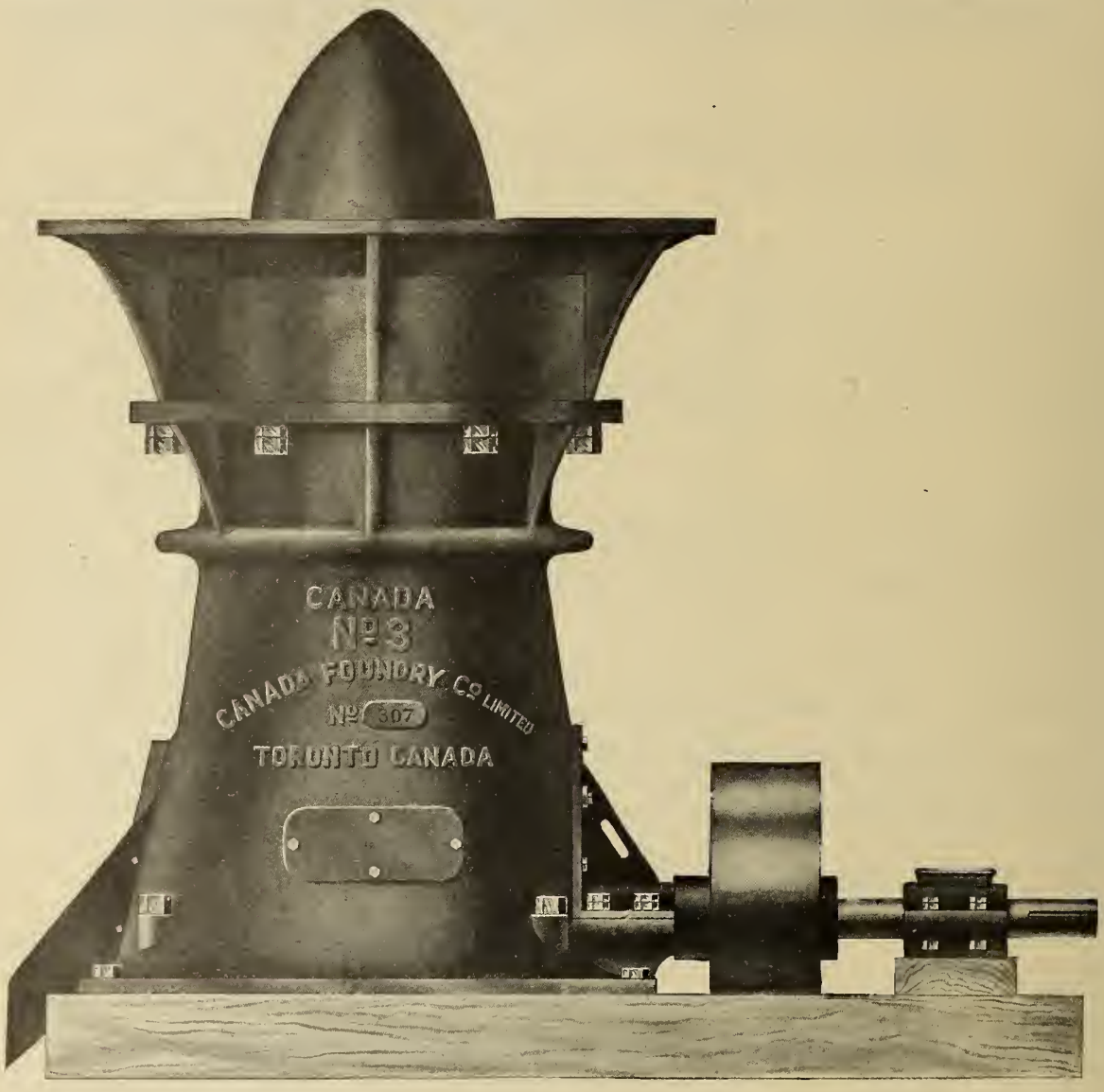
The second-hand rail business, however, is a very different proposition, the main difference being with the new rails; the mill man has them and is glad to sell them and make prompt delivery, whereas, with the second-hand rail the superintendent, roadmaster, or possibly the section foreman has them sometimes hidden away in an old ballast pit or some other out of the way place, and they are anything but anxious to make prompt delivery, or for the matter of that, delivery at all, and this is just where the relationship of the General Storekeeper with the superintendent, roadmasters, and others get so close at times as to be almost pleasant. We have centralization yards for these rails located at various points on the several grand divisions. These yards take care of the rails picked up from the different districts on the division where they are located. In these yards I have stored at the present time something like 240 miles, or 22,900 tons of second-hand rails properly sorted and easily available for prompt filling of properly approved requisitions. In classifying these rails, all fit for main line of the different weights are kept in separate piles, so also are the rails fit for branches and sidings, while battered, piped, curve worn, and bent rails are put aside to be put through the rail saw and bender. All second-hand rails received at these yards are carefully checked by competent track men, so that none but the best of them enter into service again.

Of all the interesting shops at Angus, the frog and switch shop has perhaps a little more business interest for the stores department than any other. This shop, which I think will compare favorably with anything of its kind in the country, so far as its equipment, layout, and certainly turnout is concerned, is a feature by itself. From this shop the total switch material for the whole system is supplied. To give a brief idea as to what this means, the following figures may be of interest. During the year to date there has been delivered from this shop to the line the following switch material:—2,500 spring and rigid frogs; 1,755 switch stands; 1,550 split switches; 64 diamond crossings. In the construction of this new work, together with the thousands of switch rods, head chairs, step chairs, connection plates, etc., and the repairs to similar material, something like the following new material was used:—975 tons standard 80-lb. rails, 300 tons b.b. iron, 450 tons grey iron, steel and malleable castings. This shop, though operated by the mechanical department, is exclusively a manufacturing material plant, and in this sense is a branch of the stores department.

The question of scrap handling is of such import to a railway company I do not care to exclude it from this paper; at the same time there has been so much written on the subject there does not appear to be much left for me to tackle. However, as we have a system very much our own of taking care of scrap on the C.P.R., I will endeavor to outline it and point out wherein it differs from methods in force on many American lines. All scrap material is the property of the General Storekeeper and is subject to his instructions no matter where located, same as new material. Scrap statements are made up at the various divisional and other points of the different divisions each month and forwarded to the office of the General Storekeeper. These reports are carefully gone over and a statement prepared showing all saleable scrap, and the same is sent the General Purchasing Agent with request to dispose of it. While our scrap sales amount to a very large figure, by far the majority of our scrap is not sold, but used in our own works. In this particular we differ from nearly all other railways with possibly a few exceptions. Our wheel foundry takes care of all scrap wheels and a very large percentage of scrap malleable couplers and steel knuckles, while our grey iron foundry takes care of all scrap castings. These are the two largest items of scrap accumulations. In our coach and car blacksmith shop many scrap axles are used for coach equalizers, and tons of iron rods are here straightened and made up into bolts, etc. In the locomotive blacksmith shop something like 3½ tons of good, clean, practically the best no. 1 scrap is used per day for blooms which are worked up into frames, frame legs, side rods, etc., so that while the same interest attaches to scrap handling on the C.P.R. as exists on other roads the interest runs in a somewhat different direction, namely, that of discriminating between material which can be further used by the company and that which should be sold. All scrap is brought in from the line to the general scrap dock at Angus, excepting certain saleable scrap at Toronto Jct., which is sold to Ontario mills to avoid hauling to Montreal, which is our principal scrap market. When the scrap arrives at Angus it is placed along either side of the scrap dock, where it is unloaded into properly classified bins, and it is from these bins the locomotive and car departments pick the material which is considered fit for further service, it being understood the residue is sold in the open market. We have at Angus a very up-to-date scrap dock and, with the addition of a few machines for breaking off coupler straps, cutting, and straightening rods, which we expect to get in the near future, we hope to take a place with the best in the scrap handling business.

Surplus and obsolete material is a subject which cannot be given too much attention and I find on many of the American lines is gone into as a specialty and with very satisfactory results. During the past year we have made fair headway at cleaning up our outside points, but there is still a lot to do at headquarters. Fortunately the majority of this class of material with us consists of castings and forgings brought about from alteration in patterns and changes in design of locomotives and cars. Another cause, however, for the carrying of surplus stock at outside points is traced to the numerous changes of the various types of locomotives from one division to another, and the consequent ordering by the other fellow of repair parts from the general store when the repair parts in stock of the division from which the engines have been transferred might just as well have accompanied the engines if the official responsible for the transfer would only advise the General Storekeeper. We are now having

ROCK CRUSHERS



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monthly statements made from out line stock books of all materials stocked three months and over, and from these lists shipping directions are issued from time to time as requisitions present themselves, thereby reducing the demands on the general store and General Purchasing Agent. During 1905 the figures representing the sales of scrap, surplus, and obsolete material apart from the value of the quantity of this class of material further used in our own works was the largest in the history of the department, and while this showing is interesting and satisfactory, I know with the co-operation of all interested in the ordering and using of material a vastly better showing is easily within reach.

While we have always had supply cars in commission on the C.P.R., it was found necessary at the beginning of last year to rearrange the service of these cars. Prior to date mentioned we operated the cars from the following divisional stores:—Hochelaga general stores for the Eastern and Lake Superior Divisions. Toronto Jct. for the Ontario Division. McAdam Jct. for the Atlantic division. But, with the steady growth of business and increase in mileage necessitating opening up of additional stations, etc., it was deemed essential this important arm of the stores department be reorganized to allow of the cars covering a greater area, and at the same time aim at cutting in on the alarming demands made on the cars for supplies, and I may say up to the present the results have been most gratifying. With the true spirit of centralization I decided to operate all supply cars from headquarters, or properly speaking, Angus general store, and with this object in view I brought the supply car men in from the Ontario and Atlantic Divisions, together with the stock carried for the cars on these divisions, and rearranged the routings of the service. Circular letters were issued to the various operating officers, and the new service went into effect without a hitch. Apart from the savings already made by these cars, which more than offsets the cost of three modern up-to-date ones, and which I hope to get into service this year, the new system makes possible the following improvements, which were only obtainable in a small measure under the old method:—Reduces baggage shipments and the consequent complaints to such a degree as to almost wipe them out. Does away entirely with waybilling, packing, and boxing at the general store. Delivers goods promptly and allows of the collection of the worn out material the new issuance is required to replace. Avoids complaints as to shortage and practically makes the lost, short, and over report, brought about by transfer in freight shipments, a dead letter; finally the relationship of the stores to the operating department is brought nearer.

As we have on the Eastern Lines of the system 37 storekeepers and foremen in charge of supplies, the question of uniformity in handling business at these different points is a matter which requires a good deal of attention, and this is where the department's inspectors can do a lot of valuable work. In the inspection of railway stores there is a great field for the right man, perhaps not so much in the up-to-date divisional store as in the far-off car repairer's shack or section foreman's tool house. These are the places where he picks up valuable information as to the delays to cars waiting material, and section gangs walking to work on account of the hand car which was sent to shops for repairs some time before not being returned, and many other items of similar interest, all of which are promptly reported to headquarters, where every effort must be made to relieve these conditions. Then again, there is the system of dropping into the different supply cars as they go over their respective routes and see that proper dispatch is given them and proper and efficient service in the issuance of supplies is given agents, section foremen and others.

The records kept at the various outside points as to material carried, ordered, and disbursed are all carefully checked from time to time by the inspector, and reports of such inspections are sent the General Storekeeper. Not only are records gone over, but the actual stock carried is checked, and questions of shortage of material, surplus stock carried, etc., are gone into. If inspection be made at one of the larger repair yards the inspector goes over the ground with representatives of the locomotive and car departments as well as the storekeeper, and it is from this healthy co-operation between departments only that the best results as to an efficient and thorough inspection can be obtained.

There is not a department on any railway system which offers better opportunities to grasp railway generalities than does the stores department, and in this connection I might instance the names of some of the foremost railway men of the present period who have risen from its ranks:—S. F. Forbes, General Purchasing Agent, Chicago, Rock Island and Peoria, formerly Storekeeper of the Chicago and North-Western; J. A. Whaling, General Purchasing Agent, Wisconsin Central, who succeeded our President as General Storekeeper on the Milwaukee Road; Sir Thos. Shaughnessy, President of the C.P.R., and a long list of others. At the same time I know of no other department which offers the same field for criticism, but, so long as the criticisms are of a good healthy nature, and tend to bring about practical and economical results, they are to be encouraged rather than scoffed at.

The foregoing paper was read at a recent meeting of the Canadian Railway Club.

Early Railroading in Manitoba.—Col. McLennan, of Cornwall, Ont., has in his possession a telegram giving the first order for the running of a passenger service on the line from Emerson to St. Boniface, Man., on what is now the Emerson branch of the C.P.R. He was then in charge of construction of that branch for the contractors, Upper & Willis, who sent him the following telegram from St. Paul, Minn., on Dec. 6, 1878:—"Have our engine take caboose and coach from St. Paul and Pacific at the Y on arrival of Crookston train daily except Sundays running through to St. Boniface. Leave St. Boniface daily, except Sundays, at 4 a.m., St. Paul time, arriving at St. Vincent Y at 8. Stop at Mennonite Crossing, Rat River, Rosseau and Emerson. This order to take effect Saturday, Dec. 7, 1878. Do not touch any freight until ordered. Charge $3.25 fare through each way, and 5 cents per per mile for way passengers."

Riley & Co., Marine Underwriters, Montreal, wrote us recently:—"We must compliment you on your journal's size and the volume of information it furnishes. It has grown greatly, and we trust it will continue to grow and flourish with the growth of the country."

The C.P.R. and the G.T.R. baggage departments have arranged to issue parcel tags to the merchants of Montreal for use in addressing parcels of out-of-town residents who desire their purchases to be delivered at the companies' parcel rooms to be called for. The circular announcing the arrangement says that parcel tags will be supplied by the baggage masters of the companies at either of the Montreal stations; the tags will have a duplicate and a third numbered coupon; the duplicate will be given to the purchaser, and the third coupon will be detached at the parcels room and given to the delivery man as a receipt for the parcel. A charge of 5c. per parcel will be made, provided they are claimed within 24 hours, and a further charge of 5c. per 24 hours will be made for parcels not so removed.

The Canadian Car Service Rules.

The following memorandum was issued by the Board of Railway Commissioners under date of Jan. 25:—

Numerous complaints and objections have been presented to the Board of Commissioners respecting charges made by railway companies for demurrage or delay in the loading or unloading of cars by shippers or consignees, and the rules governing such charges. Some of these complaints and objections go to the foundation of the charge, and challenge its legality. Others relate only to the rate, or to the rules or their administration. The practice of railway companies, before the constitution of the Board, was to charge lower tolls on goods in carload lots than for less quantities. This practice was sanctioned by the freight classification, and has been followed in the tariffs authorized by the Railway Act, 1903. It appears to the Board to be reasonable that railway companies which deliver cars to, or place them at the disposal of, shippers or consignees, for loading or unloading, should have some means of limiting the time to be occupied in the loading and unloading, and should impose a reasonable additional or increased toll on traffic carried at carload rates for any detention or use of the cars, or continued occupation of its tracks, beyond such time as is reasonably required for loading or unloading. From the public point of view, it seems to the Board that such a practice affords only a fair and just distinction between those who exercise diligence and those who do not, and is of general advantage in encouraging the rapid release of railway cars for further use. After careful consideration, the Board is of opinion that it is lawful for railway companies to make the carload rates higher in cases in which such delay occurs than in those in which it does not, and that it is within the power of the Board to determine the amounts of the additional tolls, and to make general rules and regulations governing their imposition.

In some cases parties have asked that the allowance of the charge be made conditional upon a provision for what has been called "reciprocal demurrage," or some penalty or charge for delay by railway companies in supplying cars, or in receiving, transporting, or delivering traffic. This latter subject requires more investigation and consideration than the Board has yet been able to give to it. The Board deems it advisable to provide, as soon as possible, for the substitution of an improved set of car service rules, without the delay that would be necessary for investigation of and determination upon the other subject.

The Board has also been asked to allow an average to be struck of the times occupied in loading and unloading various cars, giving credit to parties for surplus time not used as against over-time. The Board does not think that there would be many cases in which this would result in any considerable advantage to such parties, and apprehends that any such advantage would be more than compensated for by the introduction of complications and grounds for dispute.

Objection has been made to the Board against the system by which several railway companies have joined in an association or bureau for investigating cases of delay in the loading or unloading of cars, and enforcing their charges therefor. This appears to the Board to be a matter of internal management on the part of railway companies with which the Board should not interfere. It would be quite competent for any railway company to constitute a separate department and appoint separate officials for the management of this part of its business, and there seems to be no reason why several railway companies should not appoint joint officials for

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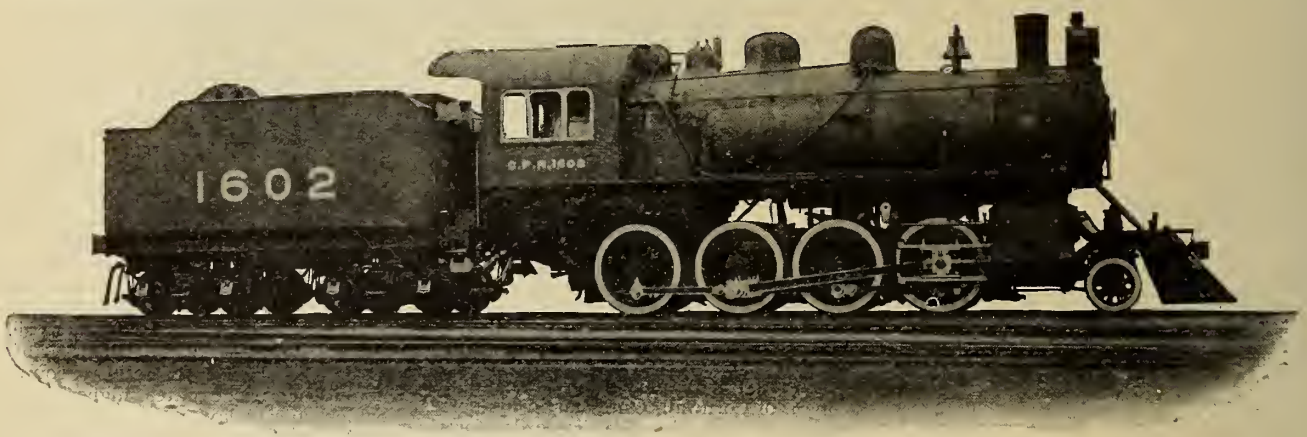

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the purpose, or commit this work to a joint department. This system appears to offer some advantages in the way of securing greater uniformity in administration, and providing some check on discrimination. The Board hopes that railway companies will endeavor to secure the fair and impartial administration of the rules, and in case it is found that the giving of preferences cannot be otherwise prevented, it may be necessary to abolish the car service toll entirely. The Board can only view such a bureau as an agency, and such officials as agents of the railway companies concerned, and it has carefully avoided the adoption of any rule which might appear to confer upon any such body or officials the right of deciding disputes as between the companies and the public, or the power to bind any but the railway companies.

The impracticability of framing rules adequate for all cases is conceded, so that while these rules are made imperative, the Board expects that, when in doubt, the officer appointed for the purpose will interpret them liberally, but without unjust discrimination or undue preference. After giving every opportunity which seemed to the Board to be reasonably possible for the various interests affected to present their views upon the subject, the Board has adopted a set of rules to which it desires that a fair trial should be given. The compilation of these rules, and the settlement of numerous details, has involved a great deal of care and consideration, and has taken considerable time. The Board recognizes that some interests may not yet have had notice of the inquiries being made, or an opportunity of fully presenting their views, and that, in some details, the rules now adopted have not come to the attention even of those who have discussed the subject before the Board. On that account, although desiring that a reasonable time may be taken for a trial of the new set of rules, the Board will give careful attention to any material representations respecting them which any party may desire to make.

The new rules are intended to take effect over the whole of Canada as respects all railways under the jurisdiction of the Board.

The order, which is also dated Jan. 25, follows:—

Whereas numerous complaints have been made to the Board with respect to charges made by railway companies for delay in loading and unloading of cars, and the rules regulating the same; and whereas it appears to the Board that all such charges and rules should be disallowed, and that, in cases in which railway cars are, or are to be, loaded or unloaded by shippers or consignees, railway companies should be authorized, subject to the rules hereinafter contained, and by way of compensation for unduly prolonged detention and use of cars and use of tracks, to increase, as hereinafter specified, their tolls upon traffic carried, or to be carried, in carloads, or at carload rates; and whereas it appears to the Board to be important, in the public interest, to secure the fullest possible use of railway cars, tracks and equipment, and for that object to discourage the delay aforesaid; now, therefore, in pursuance of secs. 23, 25, 257, and 275 of the Railway Act, 1903, and of all powers possessed by the Board under the said act—It is ordered that

1. Except as mentioned in the proviso to paragraph no. 4 of this order, all tolls or charges heretofore charged or imposed by any railway company for delay in, or additional time used in, the loading or unloading of cars, whether under the name of demurrage, car rental, or car service, or otherwise, and all rules regulating the same be and the same are hereby abolished and disallowed; and all railway companies subject to the jurisdiction of the Board shall henceforth cease to impose and use the same.

2. Except as mentioned in the proviso to paragraph no. 4 of this order, every portion of any freight tariff, or bill of lading, of any railway company providing for a charge for delay in the loading or unloading of cars, or for demurrage, car rental, or car service, is hereby disallowed, and the following tolls and rules are substituted for such charges, and for the rules regulating such charges.

3. The railway companies are authorized to cancel the aforesaid portions of their existing freight tariffs, and to substitute the tolls and rules hereinafter specified, by the publication and filing of general notices in lieu of individual supplements to the various tariffs.

4. This order, and the rules hereinafter set forth, shall come into force and take effect on and from March 1, 1906; provided that nothing in this order, or in the rules hereinafter set forth, shall be deemed to apply to or affect the loading of cars delivered, or placed, for loading prior to the coming into force of this order, or to the freight delivered to a railway company for carriage before the coming into force of this order.

5. All freight traffic, in carloads or less, which is, or is to be, loaded or unloaded by the shippers or consignees thereof, shall be subject to the following rules, to be known as "The Canadian Car Service Rules":—

Rule 1. When cars are held under load, or awaiting loads, beyond the free time allowed by rule 2, for any reason for which the consignee or shipper is responsible, a toll of $1 per car per day of 24 hours, or any part thereof, shall be charged to, and paid by, the shipper, consignee, or other party responsible therefor, in addition to all other tolls paid or payable, in respect of the goods carried, or to be carried, in or on such car.

Rule 2. Twenty-four hours shall be allowed the consignee, after notice of arrival, in which to pay the tolls or charges (if any) and give orders for special placing or delivery (subject to rules 11 and 15). Forty-eight hours free time shall be allowed for loading or unloading (except as hereinafter provided). On cars placed for loading or unloading, before or at 11 a.m., the free time shall begin at 1 p.m. following; if placed after 11 a.m., the free time shall begin at 7 a.m. following. Exceptions: (a) Twenty-four hours additional free time shall be allowed for unloading coal, coke and lime in bulk, and for loading or unloading the following descriptions of lumber only, namely, boards, deals and scantlings. (b) Five days free time shall be allowed at Montreal and at tide-water ports for unloading lumber and hay for export. (c) In the portion of Canada to which the Manitoba Grain Act, 1900, and its amendments, apply only 24 hours free time shall be allowed for loading grain. (d) Twenty-four hours additional free time shall be allowed for clearance of customs, where the destination is a port of entry, making the allowance for clearance of customs, and for giving, placing or delivery orders, 48 hours in all. Where the destination is not a port of entry, 48 hours shall be allowed for clearance of customs at the outside port of entry.

Rule 3.—No car service toll shall be charged for Sundays or legal holidays.

Rule 4.—Car service tolls shall not be collected from the consignee for any delays for which the customs officials may be responsible.

Rule 5.—Cars shall be so placed as to be easily accessible at all times during the period allowed for loading or unloading. At stations where such placing is at the time reasonably practicable, cars shall be placed so as to be easily accessible on both sides. Time lost to the shipper or consignee through interruption, either by movement of trains or shunting of cars, or any other cause for which the railway company is, or may be held to be, responsible, shall be added to the free time allowance.

Rule 6.—If wet or inclement weather, according to local conditions, renders loading or unloading impracticable during business hours, or expose the goods to damage, the time allowance shall be extended so as to give the full free time of suitable weather. But if the parties neglect or fail to avail themselves of the first 48 hours, or 72 hours, as the case may be, of suitable weather, they shall not be allowed additional free time by reason of such neglect.

Rule 7.—When, owing to conditions for which the railway company, or connecting railway companies is or are responsible, or to any neglect or default of its or their agents or employes, or to storms or floods, or to accidents on a railway, or accident to the equipment of the railway company or companies, cars are tendered to the consignee in numbers beyond his ascertained reasonable ability to unload within the authorized free time, such additional time shall be allowed as may be necessary, with the exercise of due and reasonable diligence on the part of the consignee, to unload the cars so in excess.

Rule 8.—The consignee shall be promptly notified of the arrival of his freight, and shall be held to have been notified when notice of arrival has been delivered at his address, or place of business; provided that, if such notice be given later than 6 p.m., it shall be considered not to have been received until 7 o'clock the following morning. If notice be mailed, the consignee shall be held to have been notified at 7 a.m. of the day following.

Rule 9.—If the consignee fail to give placing or delivery orders within the 24 hours allowed by rule 2, the car shall be considered to be intended for public team track delivery and shall be placed accordingly; and, if not unloaded within the free time, such car shall be subject to the car service toll.

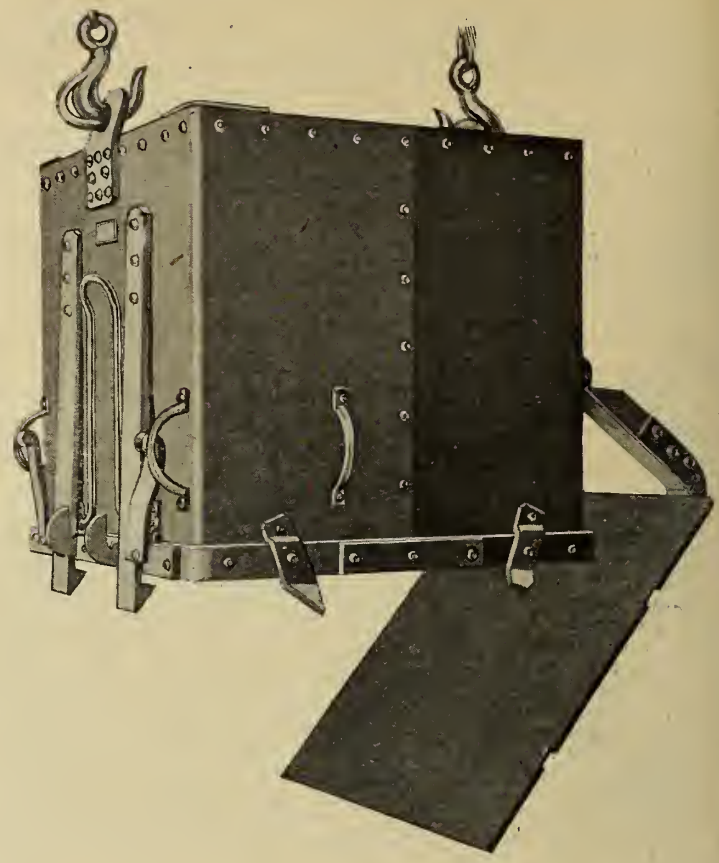
Rule 10.—The railway agent shall notify the consignee or his carter, on application, where his car has been placed for unloading. Any time within the free time allowance lost to the consignee in so doing, for which the railway company is responsible, shall be added to the free time allowance. If a car has been placed before 7 a.m., and at that hour the agent or his representative is unable or fails to inform the consignee or his representative, on application, as to the placing of the car and where it has been placed, then the free time shall not commence until 12 noon following, unless the consignee commences to unload before noon, in which case the time so lost to the consignee shall be added to the free time allowance as aforesaid.

Rule 11.—Freight for which the railway company holds previous or standing orders from consignee for placing on designated tracks or private sidings, shall not be entitled to the extra 24 hours allowed by rule 2 for paying freight charges and giving placing or delivery orders, but when in bond shall be entitled to the 24 hours allowed by rule 2 (d) for clearance of customs.

Rule 12.—When both cars and tracks are owned by the same private party, no car service tolls shall be charged.

Rule 13.—The delivery of cars to private tracks shall be considered to have been made when such cars have been properly placed on the tracks designated, or when they would have been so placed but for some condition for which the shipper or consignee is responsible. If cars cannot be so placed, the railway company holding them shall so notify the consignee, in order that he may have the opportunity of designating some other siding on which he is willing to load or unload, if he so desires.

Rule 14.—If, after placing, cars are ordered to another siding on the same road, at the same station to complete loading or unloading by the same shipper or consignee, the free



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OF AMERICA.

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time shall be computed from the original placing, less the time occupied in replacing the car.

Rule 15.—If, after arrival at destination, a car is reconsigned under switching arrangements, the original consignee alone shall have 24 hours in which to give orders for special placing or delivery, and he shall pay $1 a day, or any part thereof, for all time in excess of the 24 hours, so that the final free time of 48 hours, or 72 hours, as the case may be (authorized by rule 2), shall still remain to the party who accepts delivery.

Rule 16.—If an authorized employe upon a railway which performs switching services gives notice that such railway is unable to receive cars for private sidings, owing to conditions for which the shippers or consignees are responsible, then any other railway company having cars for such consignees shall so advise them, and the car service toll shall be charged until the cars on such private sidings have been unloaded or loaded, as the case may be, or until such sidings have been otherwise cleared.

Rule 17.—Cars held in transit for inspection, grading, cleaning, bagging, completion or change of load, or change of destination, under a through rate from the original shipping point to the final destination, with or without a stop-over charge, and detained over the time allowed for such purpose in the published tariffs, shall be subject to the car service toll. If such shipments are transferred to other cars, the car service tolls shall follow on the cars to which transfer is made.

Rule 18.—Manufacturers, lumbermen, miners, contractors or others, who have their own tracks and motive power, and handle cars for themselves or other parties, shall be charged car service tolls on all cars delivered to them from the time placed upon the interchange tracks until returned thereto, after allowance has been made for the time necessary for them to do the switching (not to exceed 24 hours), and for the free time authorized by rule 2.

Rule 19.—Cars shall not be held back for the purpose of evading these rules. Loaded cars held back for cause must be reported.

Rule 20.—When cars are delayed or refused by consignees because of alleged incorrectness in the railway weights or charges, car service tolls shall not be charged if the railway weights or charges are proved to be incorrect.

Rule 21.—If payment of car service tolls properly due be refused, delivery of only the car or cars on which such car service tolls are due shall be withheld, by means of sealing or locking, or by placing where such cars only shall not be accessible. If the owners or users of private sidings, or the owners of railways referred to in rule 18, refuse to pay any car service tolls which may already be due, delivery of cars to such sidings or railways shall be suspended, and deliveries shall be made on the public team tracks until such unsettled car service tolls have been paid.

Rule 22.—In this order, and the rules therein contained:—(a) The singular includes the plural, and the plural the singular, and the masculine the feminine, as the case may be; (b) Any reference to a rule by number is to be considered as a reference to that one of the foregoing rules which is so numbered; (c) The expression "car service toll" means the additional or increased toll authorized by rule 1.

The Canadian Transfer Co.'s shareholders met in Montreal Jan. 30, for the annual meeting and re-elected the following as directors:—Col. F. C. Henshaw, H. Paton, C. Cassils, G. R. Starke, Sir H. M. Allan; F M. McRobie, Manager and Secretary.

March Birthdays.

Many happy returns of the day to

W. G. Annable, General Baggage Agent, C.P.R., Montreal, born at Ottawa, Mar. 3, 1875.

P. S. Archibald, C.E., General Manager Elgin and Havelock Ry., Moncton, N.B., born at Truro, N.S., Mar. 21, 1848.

C. N. Armstrong, ex-General Manager Atlantic and Lake Superior Ry., Montreal, Que., born at Maskinonge, Que., Mar. 19, 1850.

Hon. A. G. Blair, K.C., ex-Chief Railway Commissioner for Canada, Ottawa, born at Fredericton, N.B., Mar. 7, 1844.

D. E. Brown, General Agent C.P.R. for China, Japan, etc., Hong Kong, born at Owen Sound, Ont., Mar. 20, 1855.

G. J. Bury, General Superintendent Central Division C.P.R., Winnipeg, Man., born at Montreal, Que., Mar. 6, 1866.

Allan Cameron, General Traffic Agent, C.P.R., for Great Britain and Europe, London Eng., born near Owen Sound, Ont., Mar. 14, 1864.

F. G. J. Comeau, General Freight Agent Dominion Atlantic Ry., Halifax, N.S., born at Meteghan River, N.S., Mar. 10, 1857.

A. E. Cox, Storekeeper Canadian Northern Ry., Winnipeg, Man., born at Huddersfield, Eng., Mar. 12, 1863.

H. B. Curtis, General Superintendent Newfoundland Express Co., St. John's, Nfld., born at Adrian, Ohio, Mar. 21, 1848.

Hon. L. J. Forget, President Montreal Street Ry. Co., born at Terrebonne, Que., Mar. 11, 1853.

C. O. Foss, on survey National Transcontinental Ry. in New Brunswick, born at Wentworth, N.H., Mar. 20, 1852.

H. W. Gays, General Manager Ottawa and New York Ry., Ottawa, Ont., born at Brant, Erie co., N.Y., Mar. 21, 1848.

F. Grundy, Vice-President Quebec Central Ry., Sherbrooke, Que., and President Temiscouata Ry., born at Bury, Lanc., Eng., Mar., 28, 1836.

J. Halstead, chief clerk to Assistant General Freight Agent C.P.R., Vancouver, B.C., born at Bracebridge, Ont., Mar. 2, 1877.

R. M. Hannaford, Engineer Permanent Way, Buildings and Bridges, Montreal Street Ry., Montreal, born there, Mar. 22, 1865.

W. Harty, M.P., President Canadian Locomotive Co., Kingston, Ont., born in Biddulph tp., Middlesex, Ont., Mar. 8, 1847.

C. A. Hayes, Assistant General Freight Agent G.T.R., Chicago, Ill., born at West Springfield, Mass., Mar. 10, 1865.

H. S. Heydon, ex-General Agent Canada Atlantic Ry.,New York City, born at Newark, N.Y., Mar. 28, 1861.

C. B. Hibbard, General Manager Quebec Southern Ry., Montreal, born at St. John's, Que., Mar. 31, 1858.

J. Hobson, Chief Engineer G.T.R., Montreal, born at Guelph, Ont., Mar., 1834.

T. M. Kirkwood, director Central Ontario Ry., born at Toronto, Mar. 23, 1859.

F. Lee, Division Engineer, C.P.R., Winnipeg, born at Chicago, Ill., Mar. 7, 1873.

R. W. Long, Division Freight Agent G.T.R. Stratford, Ont., born at Appin, Ont., Mar. 20, 1873.

C. E. Lytle,General Superintendent Duluth, South Shore and Atlantic Ry., Marquette, Mich., born at Newark, Ohio, Mar. 2, 1859.

D. D. Mann, Vice-President, Mackenzie, Mann & Co., Ltd., and 1st Vice-President Canadian Northern Ry. Co., Toronto, born at Acton, Ont., Mar. 23, 1853.

Owen McKay, ex-Chief Engineer, Lake Erie and Detroit River Ry., Walkerville, Ont., born in Ross tp., Renfrew co., Ont., Mar. 13, 1848.

W. C. Orchard, Chief Freight Tariff Bureau C.P.R., Montreal, born in London, Eng., Mar. 16, 1865.

H. Parry, General Agent Passenger Department, New York Central Rd., Buffalo, N.Y., born at Hamilton, Ont., Mar. 27, 1865.

R. Patterson, Master Mechanic G.T.R., Stratford, Ont., born at Brantford, Ont., Mar. 13, 1860.

J. A. Sheffield, ex-Superintendent Sleeping and Dining Cars, C.P.R., at Montreal, born at Columbus, Ohio, Mar. 16, 1845.

J. F. Slocum, Secretary-Treasurer International Ry. Co., Buffalo, N.Y., born at Geneva, N.Y., Mar. 25, 1876.

C. J. Smith, General Manager Richelieu and Ontario Navigation Co., Montreal, born at Hamilton, Ont., Mar. 10, 1862.

W. Y. Soper, director Ottawa Electric Ry. Co., Ottawa, Ont., born at Oldtown, Me., Mar. 9, 1854.

J. N. Sutherland, General Freight Agent C.P.R., St. John, N.B., born at Sydney, N.S., Mar. 17, 1843.

W. F. Tye, ex-Chief Engineer C.P.R. Montreal, born at Haysville, Ont., Mar. 5, 1861.

G. W. Vaux, Assistant General Passenger and Ticket Agent, G.T.R., Chicago, Ill., born at Montreal Mar. 21, 1866.

H. Wallis, ex-Chief Mechanical Superintendent G.T.R. Montreal, born at Derby, Eng., Mar. 10, 1844.

D. O. Wood, General Freight Agent for Ontario Allan Line Steamships, Toronto, born at Kleinburg, Ont., Mar. 16, 1864.

Canadian Ticket Agents' Association.

A meeting of the Executive Committee was held in Toronto, Feb. 6; present: W. Jackson, Chairman; W. Bunton, President; E. de la Hooke, Secretary; W. Maughan, J. P. Hanley, R. J. Craig, C. E. Horning, W. McIlroy, and C. R. Coleman. J. F. Dolan was prevented from attending owing to the death of his youngest sister, Mrs. J. M. Eagan, of Butte, Montana. There were also present, by invitation, J. H. Flock, K.C., Honorary Counsel, and Acton Burrows, Manager of THE RAILWAY AND MARINE WORLD, the Association's official organ.

Invitations for the holding of the next annual meeting were read from Mobile, Alabama; Milwaukee, Wis.; Denver, Col.; and Sault Ste. Marie, Ont., and after very full consideration Mobile was selected.

L. W. Landman, G.A.P.D., New York Central Lines, Toledo, Ohio; E. N. Aiken, N.E.P.A., Queen and Crescent Route, Detroit, Mich; and E. Britton, D.P.A., Pere Marquette Rd., London, Ont., were then invited to the meeting and gave considerable information to assist the committee in preparing an itinerary.

The annual meeting will be held in Mobile about Oct. 15. The party will assemble in Detroit, Mich., travelling thence by special train on the Wabash Rd. to St. Louis, and from there by the Mobile and Ohio. A day will probably be spent in Mobile, after which the party will proceed by Louisville and Nashville Rd. to New Orleans, La., where a two days' stay is likely to be made. From New Orleans the Queen and Crescent Route will be taken to Cincinnati, Ohio, to which city half a day will probably be devoted. Then the Cincinnati, Hamilton and Dayton and the Pere Marquette will be taken back to Detroit, where the party will disperse after a trip which is expected to occupy about eight days. The details and exact dates were left in the hands of the Secretary.

A hearty vote of thanks was passed to the public bodies in Milwaukee and Denver for the cordial invitations they had extended.

An invitation having been read from the American Association of General Passenger

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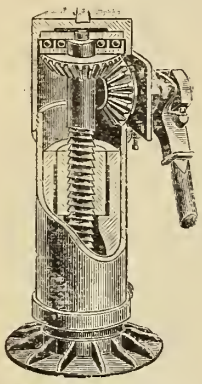
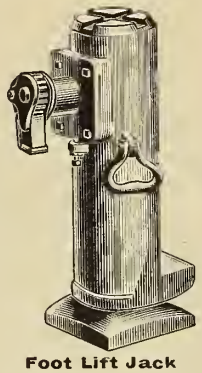


Sectional View



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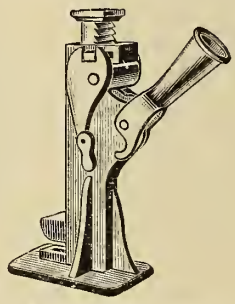
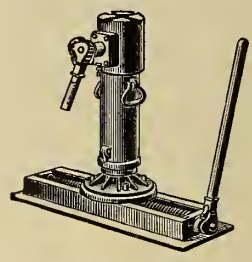
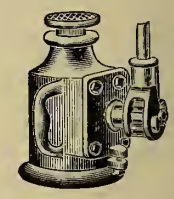


15 Ton Track Jack



Traversing Jack



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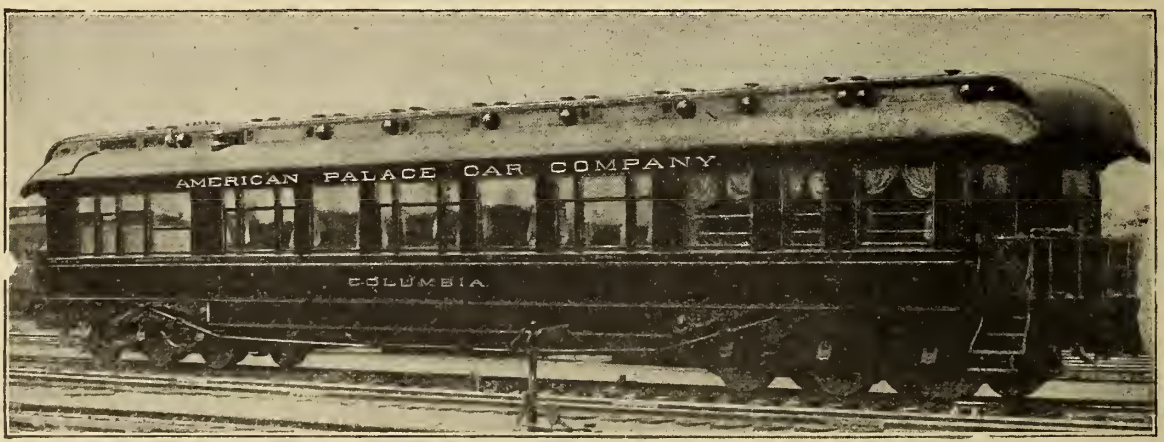

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and Ticket Agents, it was decided to ask W. E. Rispin, of Chatham, Ont., to attend that Association's meeting at Atlantic City, N.J., in Oct. next, as the representative of the C.T.A.A.

R. M. Roy, of Peterboro', Ont., was elected Honorary Photographer of the Association.

RAILWAY DEVELOPMENT.

Projected Lines, Surveys, Construction, Betterments, Etc.

Alberta Northern Ry. and Coal Co.—Application will be made next session of the Dominion Parliament for an act incorporating a company with this title to construct a railway from Lethbridge northwesterly to High River, thence northerly to Calgary, thence west of the Edmonton branch of the C.P.R. to Edmonton, with branch lines to Red Deer and Wetaskiwin, Alta., as well as to other points not named. Power is also asked to operate telegraph and telephone lines; to develop and sell electric power; to run steamboats and ferries, and to develop coal and other mines. A. J. Arnold, Windsor, Ont., is solicitor for the applicants.

Alberta Ry. and Irrigation Co.—The Dominion Parliament will be asked next session to pass an act extending the time within which it may construct and complete the railways and branches which it has been authorized to construct. (Aug., 1905, pg. 349).

Algoma Central and Hudson Bay Ry.—A press report recently credited F. H. Clergue with stating that the line would be extended during the current year 25 miles to connect with the C.P.R. We were officially advised, Feb. 16, that the Board had not reached any definite decision with regard to intended extensions or betterments. The main line extends from Sault Ste. Marie to mileage 70, at the north branch of the Chippewa River; the grading is done through to Josephine Jct., which is 101 miles from the present track end. At Josephine Jct. the line will join the existing line from Michipicoten Harbor. The distance from Josephine Jct. to the C.P.R. main transcontinental line is 35 miles. (July, 1905, pg. 281.)

Brandon Transfer Ry.—The Dominion Parliament will be asked next session for an act incorporating a company with this title to construct and operate a transfer railway from the main line of the C.P.R., where it crosses sec. 22, tp. 10, range 19 w.p.m., southerly or southeasterly to the southern boundary of Brandon; thence easterly to the eastern boundary of the city, thence northerly to the C.P.R. main line near sec. 24, tp. 10, range 19, w.p.m., with power to construct branch lines not exceeding six miles in length. Coldwell, Coleman and Noble, Brandon, Man., are solicitors for the applicants.

Calgary and Fernie Ry.—Application will be made next session of the Dominion Parliament for an act incorporating a company with this title to construct a railway from Calgary, Alta., southwesterly through Kananaskis Pass to the headquarters of the Elk River, B.C., thence to Fernie. Ross and Alexander, Victoria, B.C., are solicitors for the applicants.

Crawford Bay and St Mary Ry.—Application will be made next session of the Dominion Parliament for an act authorizing the company to extend its proposed railway from Fort Steele, B.C., easterly by the most feasible route to Lethbridge, Alta., and granting an extension of time for the construction of the various lines. (Aug., 1904, pg. 275).

Detroit River Tunnel Co.—At a meeting of shareholders at Detroit Mich., recently, the following were elected directors: W. K., F. W. Vanderbilt, C. M. Depew, S. B. Barger, W. H. Newman, H. McK. Twombly, C. F. Cox, New York; H. B. Ledyard, H. Russel, Detroit, Mich., N. Kingsmill, K.C.; W. P. Torrance, Toronto. This is the company organized to construct a tunnel between Windsor, Ont., and Detroit, Mich., the preliminary work for which is in progress. (Oct., 1905, pg. 459).

Essex Terminal Ry.—Application will be made next session of the Dominion Parliament for an act extending the time for the commencement and completion of the proposed railway and other works; to make changes in the provisional directorate, and to change the head office of the company. J. H. Coburn, Walkerville, Ont., is solicitor for the applicants. (Aug., 1904, pg. 275).

Great Northern Ry. of Canada.—It has been announced in Montreal that a contract has been let to J. P. Mullarkey of Montreal, and M. J. O'Brien of Renfrew, Ont., for the construction of the cut-off from Burrill's Siding, Que., to Quebec city, about 80 miles, and a line to connect the Montford and Gatineau division with the main line at St. Jerome, Que., about 20 miles. The first line will give the G.N. Ry. an independent entrance into Quebec city, its present entrance being over the tracks of the Quebec and Lake St. John Ry. from Riviere a Pierre Jct., and the second line will join up the old Montford and Gatineau Ry. with the rest of company's lines. The work on the two lines is fairly light.

Next session of the Dominion Parliament application will be made for an act granting an extension of time for the construction of uncompleted portions of its authorized lines between St. Jerome, St. Sauveur or Lachute and a point on the Ottawa, Northern and Western Ry., in Wright county, Que. (Dec., 1905, pg. 563.)

James Bay Ry.—The question of the crossing of a G.T.R. siding in the Don Valley was the occasion of some little conflict between gangs of men employed by the two companies recently. The J. B. Ry. men got their track laid successfully, but the matter was taken before the Courts by the G.T.R.

We have been advised that the grading, excepting bits aggregating less than a mile in the Don valley, and three or four miles between Beaverton and Washago, has been completed to six miles north of Parry Sound, Ont. Beyond this, up to the crossing of the C.P.R. near Sudbury, grading is being proceeded with. About 2,000 men are employed on the different sections, the total mileage being about 250 miles. From six miles north of Parry Sound south to the crossing of the Severn River, about 54 miles, track has been laid, about one-half being ballasted, and the steel bridges in. Track is laid from Beaverton south for 42 miles, that is to about 23 miles north of Toronto. Stations have been built at Parry Sound, Barnsdale, Foote's Bay, Beaverton, Pefferlaw and Mont Albert. It is expected to have the line between Toronto and Parry Sound in operation early in the summer, and to have it completed to Sudbury this year. The materials, as far as at present possible, have all been provided. The fencing and the construction of the telegraph line is being carried on along with the tracklaying. (Dec., 1905, pg. 565.)

Kettle Valley Lines.—The Dominion Parliament will be asked next session for an act authorizing the Kettle Valley Ry. Co. to extend its constructed or authorized lines as follows:—From Midway to Hedley, B.C.; from Hedley along Twenty Mile Creek for 20 miles; a branch from the line between Midway and Hedley to Penticton, B.C. Running powers and rights over the constructed or projected lines or branches of the Columbia and Western Ry., between Grand Forks and Midway, will be asked for, together with an increase of capital to $5,000,000, and of bonding powers from $35,000 to $40,000 a mile. (Oct., 1905, pg. 459).

The Minnesota-Canadian Bridge Co. is the title of the company under which the Canadian Northern Ry. interests will apply for incorporation next session of the Dominion Parliament for the purpose of constructing a bridge across the Rainy River near Fort Frances, Ont. (Feb., pg. 65).

Quebec and James Bay Ry.—Application will be made at the current session of the Quebec Legislature for an act reviving the charter of this company, and extending the time for the construction and completion of the projected railway from Quebec to some convenient point on James Bay.

The Quebec and Lake Huron Ry. Co. will apply next session of the Dominion Parliament for an act authorizing an extension of time for the commencement and completion of the projected railway from Quebec to Lake Huron, at or near the mouth of French River. J. C. Langelier, Que., is Secretary of the Q. and L. H. Ry. Co. (Feb., 1905, pg. 51.)

Quebec and New Brunswick Ry.—A meeting of shareholders was called to be held at Quebec, Feb. 28, for the purpose of electing directors; authorizing the removal of the head office from Quebec to Edmundston, N.B., ratifying the acts of the directors, and authorizing legislation, if deemed advisable, affecting any portion of the railway to be built.

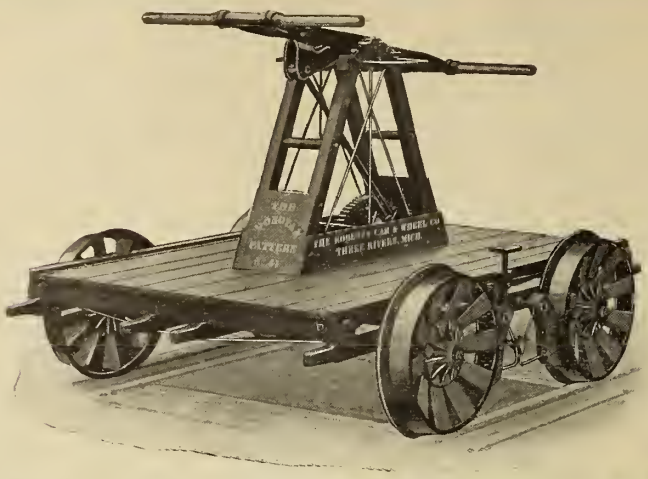
Saskatchewan Central Ry.—Application will be made next session of the Saskatchewan Legislature for an act incorporating a company with this title to construct the following lines of railway:—From the International Boundary south of Maple Creek to that town, thence northeasterly to the North Saskatchewan River at the eastern boundary of the province; from North Portal northerly to the intersection of the North Saskatchewan River and the eastern boundary of the province; from Battleford northerly to Meadow Lake; from Onion Lake southerly to Rosthern, thence easterly to tp. 41, range 3, west of the second meridian. H. A. Robson, Regina, is solicitor acting for the applicants.

Southern Central Pacific Ry.—Application will be made next session of the Dominion Parliament for an act reviving the charter of this company or such of its sections as may have lapsed; to change the names of the provisional directors, and to authorize the construction of a branch line from near the Old Man River, Alta., northwesterly across the Peace River to the boundary between Alberta and B.C. The company was incorporated in 1903 to construct a railway from Vancouver, B.C., via the Kootenay Pass, to Hudson Bay, at least 100 miles north of Fort Churchill. J. D. McLennan, Cleveland, Ohio; J. Milne, Duluth, Minn.; J. Whalen, Port Arthur, Ont., and E. F. B. Johnston, Toronto, were the provisional directors named in the act.

Superior and James Bay Ry.—The Ontario Legislature will be asked next session for an act granting an extension of time within which the projected railway may be constructed. The solicitors for the applicants are Nesbitt, Gauld and Dickson, Hamilton, Ont.

Toronto Union Station.—It is stated, on what we consider reliable authority, that the G.T.R. and C.P.R. have given a commission to Carrere and Hastings, New York, to design the new Union Station at Toronto; that Ross & MacFarlane, Montreal, will be supervising architects, acting on behalf of the New York firm, and that a contract for the entire construction of the station has been let to Westinghouse, Church, Kerr & Co., New York City.

Toronto Union Station Co.—The Dominion Parliament will be asked next session to pass an act incorporating a company with this title with power to acquire lands, to erect buildings, to construct lines of railway, tracks



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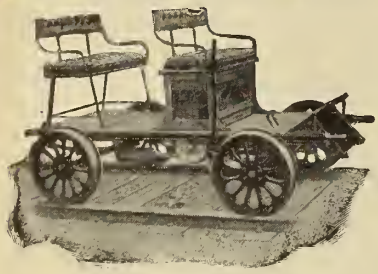
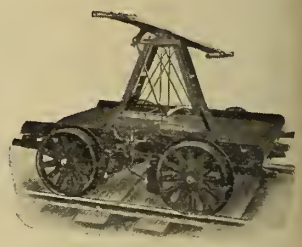


RAILWAY SUPPLIES



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and sidings, necessary for a Union station, and to issue bonds and other securities in connection with the undertaking. Power will also be asked to take over the present Union Station, to give power to the G.T.R. to transfer the same, and to authorize the G.T.R. and the C.P.R. to hold stock in the company and to guarantee its bonds. The notice of the application is signed by W. H. Biggar, General Solicitor for the G.T.R.

Vancouver, Victoria and Eastern Ry.—The lines belonging to this company at present in operation in British Columbia, are 45.87 miles in length as follows:—Grand Forks to Granby Smelter, 4.75 miles; Grand Forks to Phoenix, 24.62 miles; International boundary line at Laurier to International boundary line at Danville, including spur into Grand Forks, 16.50 miles. South of the International boundary the line connects with the Washington and Great Northern Ry., which is operated by the Spokane Falls and Northern Ry., a subsidiary of the Great Northern Ry., U.S., as well as the V., V. and E. Ry. This line runs from Marcus, Wash., to the International boundary near Laurier; from the International boundary near Danville to Republic, and from a point north of Republic to the International boundary near Midway, B.C. There are now under construction the following lines under the V., V. and E. charter, with connections with the W. and G. N. Ry. on the Washington state side of the boundary:—From Midway to Molson, 29 miles; from International boundary to Princeton, 59 miles; Cloverdale to Sumas on the west side of the Cascade mountains, about 27 miles; total, 115 miles. The contractors are Siems and Shields, St. Paul, Minn. The officers of the company are:—President, J. Hendry, Vancouver, B.C.; Vice-President, L. W. Hill, St. Paul, Minn.; Secretary, J. Jeffrey; Treasurer and Assistant Secretary, E. Sawyer; Chief Engineer, J. H. Kennedy, Grand Forks, B.C.; controller, J. G. Drew. (Dec., 1905, pg. 569.)

West Canadian Collieries Co.'s Line.—A spur line, 2,850 ft. in length, of double track, with a double crossing about the centre, has been constructed between the C.P.R. tracks and the Bellevue collieries of the W. C. C. Co. The Bellevue mine is 51.4 miles west of Macleod, Alta.

The Western Lumber and Development Co. will apply next session of the Dominion Parliament for an act giving extensive powers, including the right to construct railways, telegraph and telephone lines, and to charge tolls for the use of the same.

Yonge St., Toronto, Bridge.—A deputation from the Toronto City Council recently had an interview with representatives of the C.P.R. and G.T.R. with respect to the proposed bridge over the railway tracks at the foot of Yonge St., Toronto. The Mayor has given out the following statement:—"Two suggestions were considered; (1) That the railways pay the city a lump sum and let the city build the bridge; $100,000 was mentioned, but only approximately. (2) That the railways build the bridge and the city take care of any land damage. These are both to be looked into, and the engineers of the railways and city are, in any event, to at once determine more definitely the location and plans of the bridge with a view of minimizing all possible land damages."

Yukon.—Application will be made next session of the Dominion Parliament for an act incorporating a company with authority to construct a standard or narrow gauge railway from the Yukon River, near the mouth of Indian River, along the valley of the latter river to Quartz Creek; thence southeasterly to Dominion Creek, and along Dominion Creek to Arkansas Creek and Lombard Creek; also from the mouth of Quartz Creek to Hunker Creek, along the valley of this creek to Klondyke River, thence to the mouth of Bonanza Creek. Power is also sought to construct branch lines, telegraph and telephone lines, to develop electric power and for other purposes. J. L. Bell is solicitor for the applicants.

National Transcontinental Railway.

The Commissioners of the Transcontinental Ry. have asked for tenders for the construction of two sections of the line, and for a 3,000 ft. steel viaduct at Cap Rouge valley, Que. The sections for which tenders are asked are: From near the Quebec Bridge, now under construction by the Quebec Bridge and Ry. Co., to near La Tuque, Que., about 150 miles, described as District B; from near Winnipeg to Peninsula Crossing, Ont., near the junction point of the Lake Superior Branch of the Grand Trunk Pacific Ry., about 245 miles, and described as District F. Tenders are also asked for a steel viaduct 3,000 ft. long across the Cap Rouge valley in District B. Plans, profiles and specifications are to be seen at the offices of the Commissioners, Ottawa; for District B and for the steel viaduct, at the office of the District Engineer, Quebec, and at the District Engineer's office, Kenora, Ont., for District F. Tenders are to be put in by Mar. 12.

The located route between Winnipeg and the junction with the Lake Superior branch, it is stated, is practically an air line with a maximum grade of 0.4 of 1%. Three surveys were run, but the route selected is the most favorable one. It runs about midway between the C.P.R. and the route at first surveyed by the G.T. Pacific engineers. Starting from a point due east of Boniface, Man., it follows the township line between ranges 10 and 12 to Cross Lake, on the boundary between Ontario and Manitoba, crossing the C.P.R. between Culver and Rennie. The line will cross the Brokenhead and Whitemouth Rivers, but the line will be several miles north of the Julius muskeg, where the C.P.R. encountered a lot of difficulty during the construction of that line. Passing Cross Lake to the north the line makes a change of about 15 degrees from the direct east, touching the southern extremity of Sandy Lake and crossing the Winnipeg River where it enters the lake. At a point due north of Kenora the C.P.R. and the Transcontinental Ry. are 16 miles apart, the first survey of the G. T. Pacific Ry. engineers being six miles still further north. From due north of Kenora the route is due east, the deflection being not more than three miles at any point, and the angles not more than 30 degrees. The height of land is crossed 13 miles north of Scovil. Here the C.P.R. and Transcontinental Ry. route gradually get further apart, till at the 5th meridian they are 33 miles distant, and at Lake Superior Jct., or Peninsula Crossing, they are 41 miles apart, Raleigh on the C.P.R. being almost due south. The route is a difficult one, being largely through a rocky country with a network of small lakes and tamarac swamps.

The Dominion Public Accounts show that during the year ended June 30, 1905, there was charged to capital on account of surveys, etc., for the National Transcontinental Ry., $778,491.28.

GRAND TRUNK PACIFIC RY.

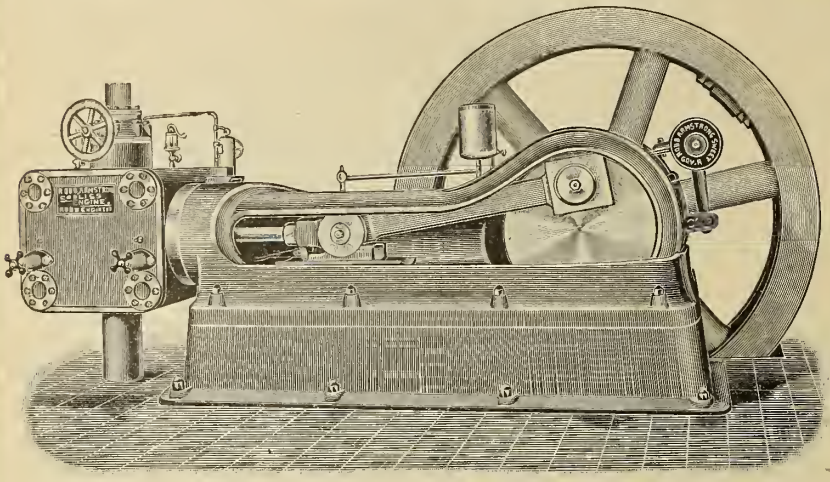
The section of the main line for the construction of which the G. T. Pacific Ry. is responsible, will extend from Winnipeg to the Pacific coast, and construction is already in progress from Portage la Prairie, Man., to the Touchwood Hills, Sask. Tenders have been invited for construction from the Touchwood Hills to Edmonton, Alta., about 400 miles. Plans, profiles and specifications were to be seen at Montreal from Feb. 1, and the tenders were opened for consideration Feb. 20. In connection with this portion of the line some difficulty arose with the C.P.R. in regard to the route through the Eagle Hills district. Some negotiations took place between representatives of the companies, and C. Schrieber, Consulting Engineer to the Department of Railways, brought about a settlement. The result is that a double track line will be constructed through the country where the two routes were crossing each other. The company has under construction a line known as the Lake Superior Branch from Fort William, Ont., to the point of junction with the Eastern Division, which is to be built by the Transcontinental Ry. Commissioners. The contractors for this branch have a number of sub-contractors at work covering the grading for the first 75 miles, and clearing for 150 miles out. Additional sub-contracts are being let, and in a short time work will be in progress over the whole 200 miles of the branch. The general contractors, Foley Bros., Larson & Co., are putting their warehouses and supplies at Niblock, English, Ignace and Dinorwic stations, and have constructed roads from these points to the route of the new line. The supplies were being teamed in, while the snow is on the ground, to the part of the line furthest from the C.P.R., and most difficult to get supplies to. There are about 1,000 men at work on the line at present, but it is hoped in a short time to have 3,000. We were recently advised that there had been considerable clearing done on the first 100 miles out of Fort William, and the grading is now under way, cuts having been opened at various points along the line, viz., on residency 2, near Fort William; residency 3, Kakabeka; residency 4, Kaministikwia; residency 6, Buda, and residency 7, Osko. West of that point only clearing is being done. The contractors are engaged in constructing the roads from the C.P.R. to various points on the survey lines, so as to be in a position to get men and equipment in, and to commence work on the second hundred miles. The engineers upon the work on behalf of the company are:—District Engineer, T. C. Taylor, Fort William; Assistant Engineers, A. G. Allan, Fort William; G. Macrone, Savanne, Ont.; Assistant Engineer, location party no. 2, A. E. Griffin, Fort William; Assistant Engineer, location party no. 3, W. F. Graham, Fort William; Resident Engineers, S. Street, R. A. Frederick, H. B. Diblee, S. F. Hazlewood, J. M. Fotheringham, Fort William; A. E. Morris, Kakabeka, Ont.; C. D. Fairchild, W. R. Smith, J. A. Vickery, J. S. Leitch, E. R. Brobeck, Savanne, Ont.

Since the above was written it is announced that contracts for construction have been awarded as follows:—Touchwood Hills to Saskatoon, 140 miles, to Canadian White Co., Ltd., Montreal; Saskatoon to Edmonton, Alta., to Foley Bros., Larson & Co., St. Paul, Minn. These contracts, with those previously let for the Lake Superior Branch, and the section from Portage la Prairie to Edmonton make a total of 942 miles under contract.

Application will be made next session of the Dominion Parliament for an act amending the charter of the G. T. Pacific Ry. Co., by giving it authority to guarantee the bonds of any company incorporated for the construction of branch lines, or of any company whose bonds it is authorized by section 28 of its act of incorporation to acquire and hold.

The Grand Trunk Pacific Branch Lines Co. is the title of a company which it is proposed to organize upon the passing of the necessary act next session of the Dominion Parliament, in the interests of the G. T. Pacific Ry. The powers to be asked include the construction of 21 branch lines, the start-

A Fine Steam Plant



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The above refers to a 350 horse power Robb-Armstrong Corliss engine and two 175 horse power Robb-Mumford boilers installed by us.

Robb Engineering Co., Ltd., Amherst, N.S.

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J. F. Porter, 355 Carlton Street, WINNIPEG

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AGENT

ing and terminal points of which are more or less definitely stated; the extension of any of the branch lines northerly to the shores of Hudson Bay, and such other lines of railway as the company may from time to time deem expedient for operation in conjunction with the G. T. Pacific Ry., subject to the approval of the Governor-in-Council. Power is also asked to operate any or all of the lines to be constructed, or to lease, sell or otherwise dispose of them, or any of them, to the G. T. Pacific Ry.; to specify the bond issue of the company, and to confer upon it similar powers to those given to the G.T.P. Ry. Co., in connection with the carrying on of a general navigation business, the operation of hotels, the issue of bonds on other property than the railway, the issue of land grant bonds, the construction of telegraph and telephone lines, the development of water-powers, the erection of warehouses, grain elevators, etc., the operation of tramways, as well as for other purposes.

The branch lines, the location of which are more or less definitely fixed, include the following:—From Moncton, N.B., to Halifax, N.S., or other suitable port on the Atlantic coast; from a convenient point on the Transcontinental Division G. T. Pacific Ry. to St. John, N.B., or other suitable port on the Bay of Fundy; lines from Montreal, Ottawa and North Bay, Ont., to the Transcontinental Division G. T. Pacific Ry.; from the Transcontinental Division G. T. Pacific Ry. northeast of Fort William, Ont., to a junction with the G.T.R. north of Toronto, with the right to pass through or reach by a spur line Sault Ste. Marie or Sudbury, or both; from and around Winnipeg, through the surrounding districts, and to the boundaries of Manitoba; from Brandon, Man., to a junction with the G.T.P. Ry.; from Brandon to the International boundary; from Brandon to Calgary, Alta.; from Yorkton, Sask., to a junction with the G.T.P. Ry.; from Regina, Sask., to a junction with the G.T.P. Ry.; from Regina to the International boundary; lines from Prince Albert, Sask., and Battleford, Sask., to the G.T.P. Ry.; from Calgary, Alta., to the G. T. P. Ry. at its fourth terminal; from Calgary to the G.T.P. Ry. at its fifth terminal; from Calgary to the International boundary; from Vancouver, B.C., to a junction with the G.T.P. Ry., or the Pacific, Northern and Omenica Ry.; from the north shore of Vancouver Island generally southerly and southeasterly to Victoria, and from Dawson, Yukon, to a junction with the G.T.P. Ry. The notice is signed by W. H. Biggar, K.C., Montreal, who is General Solicitor to the G.T.R.

The Dominion Parliament will be asked next session to pass an act authorizing the Pacific, Northern and Omenica Ry. to construct a line from the junction of the Skeena and Copper rivers, or the vicinity thereof, to the junction of the Bulkley and Telkwa rivers, and to amend section 7 of the company's act of 1902. The charter is now owned by the G.T.R. interests in connection with the G. T. Pacific Ry.

The American Association of General Baggage Agents will meet for their 26th annual convention at Los Angeles, Cal., Nov. 14. J. E. Quick, General Baggage Agent, G.T.R., Toronto, is Secretary-Treasurer.

The Dominion Transport Co., Montreal, has been granted supplemental letters patent under which its capital has been increased from $500,000 to $2,000,000, and it is authorized to extend its operations so as to include the business of carriers and forwarders by land and water, and with any kind of power; a general and manufacturing business; the business of warehousemen, cold storage and general storage, and to acquire other businesses of a similar nature, or to purchase shares of companies having similar powers.

G.T.R. Betterments, Construction, Etc.

The G.T.R. has at present a number of very extensive works of betterment in progress, in process of arrangement or in contemplation at various points on its system. At Montreal extensive alterations are being made at the freight yards, and a new sorting freight yard with roundhouse, etc., is being laid out at Turcot. While this is being gone on with the negotiations are being completed and plans finally arranged for the raising of the tracks in the city, and the construction of a new passenger station at or near Bonaventure.

At Belleville, Ont., midway between Montreal and Toronto, and the point at which the traffic from Midland comes on to the main line, the company has been purchasing considerable areas of land. Local reports state that it is proposed to enlarge the freight yards, and to double track the line from Belleville to Midland.

The yard improvements at Toronto and Mimico are nearly completed, but there are still some large works being arranged for. Apart from the erection of the new Union Station, the question of the re-arrangement of the tracks both east and west of Toronto is being discussed between the company's officials and the city council. The matter was recently discussed by the Mayor and C. M. Hays, Second Vice-President and General Manager, the latter of whom expressed an opinion that the city ought to pay one-half of the cost of street crossings. The section of the work particularly under discussion was the proposed depression of the tracks between Bathurst St. and Sunnyside, and the elevation of the tracks from Sunnyside to the Humber. There is some talk of surveys having been made for a line from Weston to Beeton, and the construction by the G.T.R. of the projected line between Meaford and Owen Sound; this would give the G.T.R. a direct line from Toronto to Owen Sound, as it has already a line between Beeton and Meaford, via Collingwood.

It is reported that tenders have been asked at Stratford for the erection of additions to the locomotive repair shops there. It is said that a boiler shop, 225 by 120 ft., and a plate shop, 125 by 50 ft., will be erected, and the present boiler shop will be used as an erecting shop, accommodating 12 more locomotives.

The Mayor of London and F. H. McGuigan, Fourth Vice-President, had an interview recently with respect to the elevation of the tracks in London. The plans, which will be submitted at an early date, will provide for the elevation of six or eight tracks through the city, the construction of a new station, the re-arrangement of the yards and the erection of a new freight shed. A new station at East London is also possible. The expenditure involved is estimated at about $1,000,000. Press reports state that an hotel will also be built at London by the company.

A rumor is current to the effect that in order to meet the competition of the C.P.R. and the James Bay Ry., which will have their Toronto-Sudbury lines built into Muskoka this year, the G.T.R. will build a branch from its Toronto-North Bay line to Port Carling.

A Detroit despatch states that it is proposed to undertake the work of laying a second track between Detroit and Durand, Mich., in order to have it completed by the time the Detroit tunnel is finished.

The work in connection with the installation of the plant, and the other alterations necessary for the operation of the traffic through the Sarnia tunnel by electricity, is now in hand, and it is the intention to prosecute it to as early a completion as possible. There will be but one power-house, which will be located at Port Huron, Mich.

Orders by the Railway Commissioners.

The following orders have been issued by the Board of Railway Commissioners:—

878. Jan. 16.—Authorizing Blenheim tp. council, Oxford co., Ont., to carry Hewitt drain across G.T.R. tracks.

879. Jan. 16.—Authorizing Brantford Gas Co. to lay gas main under the G.T.R. tracks in Brantford, Ont.

880. Jan. 17.—Authorizing the G.T.R. to strengthen Hawk Rock trestle, mileage 113⅞; Little East River bridge, milcage 153½, near Novar, Ont.; and North End viaduct, mileage 194 1-16, on the 12th district, instead of reconstructing them as authorized by orders of May 2 and May 17, 1905.

881. Jan. 16.—Authorizing the Vancouver, Victoria and Eastern Ry. and Navigation Co. to carry telephone wires across Columbia and Western Ry. tracks.

882. Jan. 17.—Authorizing the Esquimalt and Nanaimo Ry to make a deviation of its line, as already constructed from Ladysmith, B.C.

883. Jan. 17—Authorizing the C.P.R. to construct a bridge across Pitt River, B.C.

884. Jan. 17.—Sanctioning location plans for an extension of the C.P.R. Stonewall branch from Teulon, Man., to tp. 18, range 2, w.p.m.

885. Jan. 17.—Authorizing the Dominion Natural Gas Co. to lay gas mains under G.T.R. tracks at Paris, Ont.

886. Jan. 18.—Sanctioning the laying of sewer pipes under the Toronto Belt Line Ry. of the G.T.R., and the C.P.R., by the Toronto City Council, on Mark St., Toronto.

887. Jan. 18.—Authorizing the Peterborough City Council to lay sewer pipes under G.T.R. tracks at nine different points in Peterborough, Ont.

888. Jan. 18.—Authorizing the Galt Gas Co. to lay a gas main under the G.T.R. tracks in Galt, Ont.

889. Jan. 18.—Authorizing the Peterborough City Council to lay water mains under G.T.R. tracks in Peterborough, Ont.

890. Jan. 18.—Approving traffic forms of Maine Central Rd., under sec. 275.

891. Dec. 7, 1905.—Authorizing Chatham, Wallaceburg and Lake Erie Ry. to cross the Pere Marquette Rd. tracks in Wallaceburg, Ont.

892. Jan. 22.—Approving an order by the Exchequer Court for the appointment of a Receiver for the Bruce Mines and Algoma Ry.

893. Jan. 23.—Sanctioning detail plans of a bridge across the Gorge, Shawinigan Falls, Que., for the St. Maurice Valley Ry.

894. Jan. 23.—Authorizing the G.T.R. to construct a siding to the Kilgour Manufacturing Co.'s premises, Hamilton, Ont.

895. Jan. 25.—Authorizing the C.P.R. to construct a siding to the Laidlaw Lumber Co.'s premises, Toronto.

896 and 897. Jan. 25.—Authorizing the Brantford Electric and Operating Co. to carry its wires across the Toronto, Hamilton and Buffalo Ry. tracks at certain points in Brantford, Ont.

898. Jan. 25.—Authorizing the C.P.R. to construct a branch line to J. A. Harrison's premises, Toronto.

899 and 900. Jan. 25.—Authorizing the G.T.R. to construct a branch line to the Meaford Manufacturing Co. and the Meaford Wheelbarrow Co.'s premises, Meaford, Ont.

901. Jan. 26.—Authorizing the C.P.R. to construct a branch line to the Brampton Pressed Brick Co.'s premises, Brampton, Ont.

902. Jan. 26.—Authorizing the Winnipeg, Selkirk and Lake Winnipeg Ry. to operate

Twenty-Fifth Annual Statement

OF THE

North American Life Assurance Co.

HOME OFFICE - - 112-118 King Street West
TORONTO

For the year ended 31st Dec., 1905

December 31, 1904—		
To Net Ledger Assets		$5,945,362.62
December 30, 1905—	RECEIPTS	
To Cash for Premiums	$1,354,607.50	
" Cash on Investments, etc	294,941.46	
" Rent (less taxes and all charges)	6,793.61	
" Profit on Securities	3,721.03	
" Special Deposit	3,790.53	
		1,663,854.13
		$7,609,216.75
December 30, 1905—	DISBURSEMENTS	
By Expenses	$ 144,622.32	
" Commissions, Expenses and Salaries to Agents	252,686.29	
" Payments for Death Claims	259,476.07	
" Matured Endowments	52,203.00	
" Surrendered Policies	37,769.31	
" Matured Investment Policies Surrendered	92,422.21	
" Dividends to Policyholders	86,520.70	
" Annuitants	11,435.67	
" Interest on Guarantee Fund	6,000.00	
		943,135.57
		$6,666,081.18
December 30, 1905—	ASSETS	
By First Mortgages on Real Estate		$1,043,046.70
" Stocks, Bonds, and Debentures (market value $4,387,699.71)		4,279,638.00
" Real Estate, including Company's Buildings (appraised value $213,417.76)		167,644.15
" Loans on Policies, etc		491,503.05
" Loans on Bonds and Stocks (nearly all on call)		595,277.00
" Cash in Banks and on hand		88,972.28
		$6,666,081.18
" Premiums outstanding, etc. (less cost of collection) (Reserve on same included in Liabilities.)		258,990.10
" Interest and Rents due and accrued		42,942.38
		$6,968,013.66
December 30, 1905—	LIABILITIES	
To Guarantee Fund		$ 60,000.00
" Assurance and Annuity Reserve Fund		6,247,767.69
" Death losses awaiting proofs		51,142.30
" Additional provision for expenses and other charges in connection with the business of 1905		10,000.00
" Half-year's Interest Accrued on Guarantee Fund		3,000.00
" Dividends on Policies declared and unpaid		13,090.18
" Premiums paid in advance		1,593.30
" Interest on Policy Loans paid in advance		11,409.76
Net Surplus		**570,010.43**
		$6,968,013.66
New insurance issued during 1905 (gross)		$ 6,354,962
Insurance in force at end of 1905 (gross)		37,827,605

We have examined the Books, Documents and Vouchers representing the foregoing Statement and Balance Sheet, and also the securities in the latter, and certify to their correctness.

H. D. LOCKHART GORDON, F.C.A. (Can.),
JOHN H. YOUNG, F.C.A. (Can.), } Auditors.

President—JOHN L. BLAIKIE.

Vice-Presidents—HON. SIR W. R. MEREDITH, LL.D.; E. GURNEY, ESQ.

Directors—HON. SIR J. R. GOWAN, K.C.M.G., LL.D., K.C.; M. J. HANEY, ESQ.; J. K. OSBORNE, ESQ.; LIEUT.-COL. D. McCRAE, GUELPH; JOHN N. LAKE, ESQ.; W. K. GEORGE, ESQ.; J. D. THORBURN, M.D., Medical Director.

W. B. TAYLOR, B.A., LL.B., *Secretary*. L. GOLDMAN, A.I.A., F.C.A., *Managing Director*.

T. G. McCONKEY, *Superintendent of Agencies*.

The annual report, showing marked proofs of the continued progress and solid position of the company, and containing a list of the securities held, and also those upon which the company has made collateral loans, will be sent in due course to each policyholder.

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89 PRINCESS STREET, - - WINNIPEG, MAN.
403 CORDOVA STREET, - VANCOUVER, B.C.

its line across Evelyn St., Selkirk, Man., across a spur line of the C.P.R.

903. Jan. 27.—Authorizing the James Bay Ry. to place its tracks across the G.T.R. tracks at grade level near Washago or Rama Island, Ont., subject to specified conditions. These provide that the James Bay Ry. shall at its own expense and subject to the supervision of the G.T.R. engineers insert a diamond in the G.T.R. tracks at the point of crossing, provide an interlocking plant with derails on both lines, and that plans for the diamond, interlocking plant, semaphores and all machinery shall be submitted to the Board for approval. It is also ordered that in the passage of trains of the same or superior class over the crossing, G.T.R. trains shall have priority; that the man in charge of the crossing shall be appointed by the G.T.R., and that the James Bay Ry. shall pay the whole cost of providing, maintaining and operating the interlocking plant. Pending the installation of the interlocking plant, which is to be in by May 31, the James Bay Ry. may use the crossing for construction trains only on paying for a watchman to be nominated by the G.T.R.; the movement of its trains not interfering with G.T.R. trains. In all questions of liability for accident at the crossing the watchman to be employed shall be taken to be the employe of the James Bay Ry., and not of the G.T.R.

904. Jan. 25.—Authorizing the Wellington Colliery Co., Ltd., to carry its tracks across the Esquimault and Nanaimo Ry. tracks near Ladysmith, B.C.

905. Jan. 27.—Authorizing the Canadian Northern Ry. to carry its tracks at rail level across the tracks of Qu'Appelle, Long Lake and Saskatchewan Ry. (operated by the C.P.R.) at Prince Albert, Sask.

906. Jan. 25.—Authorizing Car Service Rules. See pg. 125.

907. Jan. 30.—Approving plans, profile and book of reference of the Toronto and Niagara Power Co. for the location of its railway from the county line between Haldimand and Brant counties to Cainsville, Ont.

908. Jan. 31.—Authorizing the municipal authority of Warwick, Que., to extend a highway across the G.T.R. tracks there.

909. Jan. 31.—Setting aside order of Board of Jan. 5, 1905, in so far as it affects the right of way of the James Bay Ry. on lot 13, con. 2, from the Bay, York tp., Ont.

910 and 911. Feb. 1.—Authorizing the Bell Telephone Co. to carry its wires across the C.P.R. and G.T.R. tracks in the parish of Pointe Claire, Que.

912. Feb. 5.—Authorizing the Atlantic, Quebec and Western Ry. to construct two steel bridges across the west and north Nouvelle Rivers, Que.

913. Sept. 19, 1905.—Varying order of Feb. 10, 1904, and authorizing the Vancouver, Westminster and Yukon Ry. to use its tracks from Lytton Square to Begbie St, Vancouver, B.C, and making certain other provisions with regard to the rates to be charged between the C.P.R. and the V.W.and Y. Ry.

914. Feb. 6.—Dismissing an application of the C.P.R. (lessee of the Ontario and Quebec Ry.) for the rescinding of the Board's order, Jan. 5, 1905, respecting the construction of a spur line across lot 13, con. 2, from the Bay, York county, Ont., by the G.T.R., so far as the C.P.R. was interested therein.

915. Feb. 6.—Authorizing the G.T.R. to lay an additional track across Brant St., Burlington Junction station, Ont., on placing an additional gate to be worked by an independent lever across the siding.

916. Feb. 6.—Authorizing the Guelph and Goderich Ry. to use a crossing of the G.T.R. in Guelph, Ont., previously authorized by order of Board dated Dec. 23, 1904.

917. Feb. 7.—Amending order of Jan. 16, 1906.

918. Feb. 2.—Authorizing the James Bay Ry. location of its line through the township of Rama, Ont., mileage 80.26 to 88.03.

919. Feb. 9.—Extending time for temporary use of Tottenham crossing by the C.P.R. across G.T.R. tracks.

920. Feb. 13.—Authorizing the Canadian Machine Telephone Co., to cross C.P.R. tracks in Peterborough, Ont.

Manual of Recommended Practice.—The Committee on Publications of the American Engineering and Maintenance of Way Association has published a manual of the recommended definitions, specifications and principles of practice adopted by it from year to year after consideraton of reports of committees which have investigated the subjects within the scope of the Association's work. The present volume is the first edition of the work, and it is to be supplemented or revised annually after each convention. The specifications and principles of practice are in the nature of recommendations only, and are not binding on the members or railways they represent. The subjects for which recommendations are laid down include roadway, ballasting, ties, rail, track, buildings, masonry, signs, fences, crossings, cattleguards, signalling and interlocking, records, reports and accounts, water service, yards and terminals, iron and steel structures.

The C.P.R. expects to inaugurate its double daily transcontinental service in May, about a month earlier than in 1905.

A Melbourne, Australia, correspondent writes us that another good season for the agriculturist and pastoralist is almost assured, and that the probability is that the gross and net revenue of the Victorian State Railways, of which Thos. Tait is chief commissioner, will be the highest in their history.

The Railroad Gazette, New York, recently announced that the general offices of the Canadian Northern Ry. had been removed from Toronto to Montreal. There was no foundation for this statement. The general offices are still at the corner of King and Toronto streets, Toronto, and there is not the slightest idea of a removal.

Representatives of the Lumbermen's Association of Ontario and of the Canadian Manufacturers' Association met a committee of the Canadian Freight Association in Toronto recently and requested that the equipment of flat cars with stakes and cross pieces for carrying lumber should be provided by the railway companies and not at the expense of the shippers. The freight officials will discuss the matter with the operating departments, after which it will be further considered.

The C.P.R. has advanced a claim against the Dominion Government amounting to $528,176 as subsidy payable for the construction and equipment of a line from Kirkella, Man., to the Pheasant Hills country. There is a difference between the C.P.R. and the Department of Railways as to the interpretation of the contract, and the matter has been referred to Judge Burbidge of the Exchequer Court. The claim is based on a contention that the contract entered into between the Government and the company requires the provision of sufficient rolling stock for the accommodation of the traffic business of the line and that the company was to receive a subsidy for the construction and equipment of the line. On behalf of the Government it is claimed that the subsidy does not include the equipment of the line, and that prior to 1901 it was customary to insert a qualifying clause. The C.P.R. contends that the omission of the qualifying clause was intentional and payment should therefore be made.

C.P.R. Betterments, Construction, Etc.

Atlantic Division Surveys.—On the occasion of a recent visit of J. W. Leonard, Assistant General Manager Eastern Lines, to Fredericton, N.B., he was reported to have confirmed a statement that the company was having a survey made from Debec, near Woodstock, N.B., to Bancroft, Me., for the purpose of giving the C.P.R. and the Maine Central Rd. a shorter line from Aroostook county and northern New Brunswick to Boston.

Branch at Westmount.—Plans have been deposited and the approval of the Railway Commissioners will be asked for the construction of a spur line from Westmount, Que., station, across Bethune St., for a distance of 561 ft.

Highlands to Canada Sugar Refinery, Montreal.—The branch line for which approval has been granted will be six miles long, and will be known as the South Bank branch. It will start from the Montreal-St. John line near Highlands, eight miles from Windsor St. station, where a heavy fill is encountered, and a plate-girder span will be required to carry the track across the highway near the Lachine canal. As the gradient will be comparatively easy, about three-quarters of a mile of this will be necessary to reach the canal bank level. The line will then follow near the canal bank and, after passing through Cote St. Paul, will swing closer to the canal bank, crossing the G.T.R. under grade near the swing span. From this point the track will be laid along St. Patrick St. to connect with the tracks at the Canada Sugar Refinery. Work has been started on the line, the temporary trestle from Highlands being completed, and the grading finished for 1½ miles towards Cote St. Paul. The work will be continued during the summer, and is expected to be completed before the end of the year.

The Electrification of Branch Lines in Quebec, and in the mountains of B.C., has been and still is under the management's consideration, but we were recently advised that no decision had been arrived at.

Construction Projects for Ontario.—The C.P.R. has in contemplation considerable improvements to its existing lines in Ontario, as well as extensions of the same. Of the improvements to existing lines in contemplation, perhaps the most important is the straightening of the line in the vicinity of Tweed, Ont. From Sharbot Lake the line runs southerly, passing through Tweed, and then runs north again to Havelock, almost on a line with Sharbot Lake. The proposal is to straighten out the line by the construction of a cut-off, thereby securing better gradients, a shorter line by some 14 miles, and avoiding some sinkholes and other objectional features in the roadbed. A number of survey parties are at work in the district between Sharbot Lake and Havelock. This particular work, it is understood, is being contemplated in connection with the project for the construction of a line from some point on the Montreal-Toronto line to Victoria Harbor, on Georgian Bay. The construction of this line was authorized by the Dominion Parliament in 1905 by an act incorporating the Georgian Bay and Seaboard Ry., the provisional directors being mainly associated with C.P.R. interests. Surveys for the line were made in 1905, and surveys are again being made in the same territory. Following a recent statement of Sir T. G. Shaughnessy before the Transportation Commission, forecasting an extension of the C.P.R. to Victoria Harbor, local papers have been speculating as to what would be done there in the way of wharf construction, etc. We have been advised that the company's plans have not been matured, and that it is impossible to say

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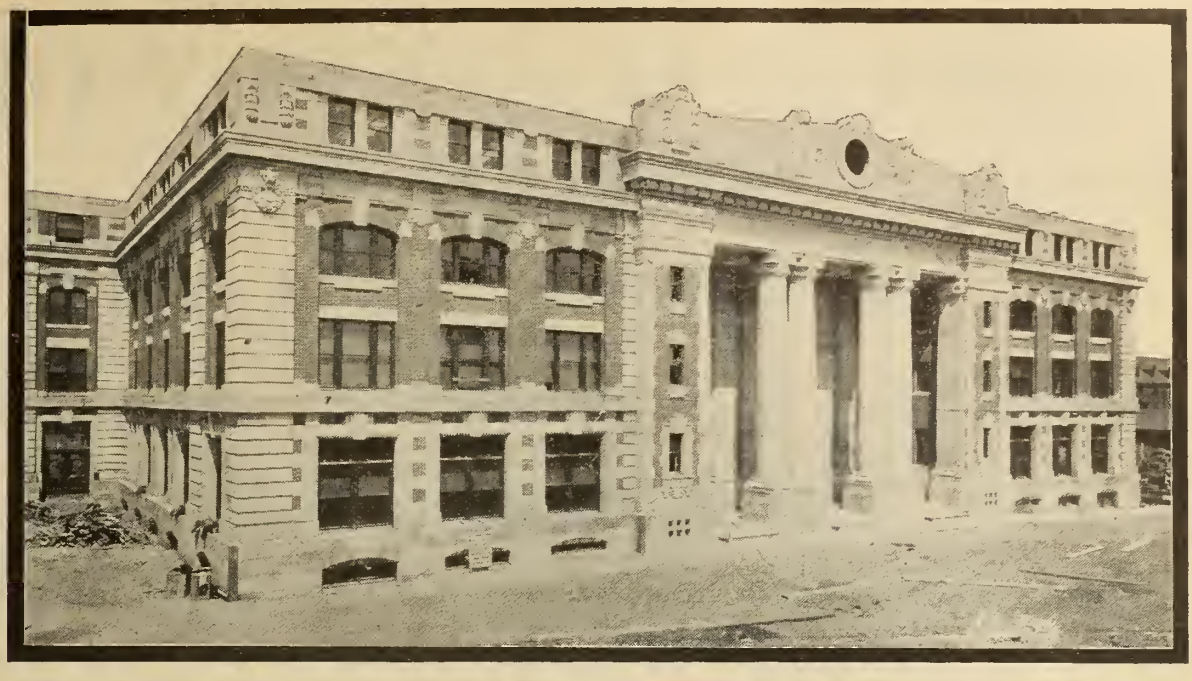
just to what extent facilities will be provided at Victoria Harbor in connection with the Georgian Bay and Seaboard Line, or when work will be started. As a matter of fact we have been informed that the general route plans in connection with the line have not been approved. Another project discussed in 1904-05 was the construction of a line under the charter of the Campbellford, Lake Ontario and Western Ry., from near Blairton to near Leaside Jct., both on the C.P.R. Montreal-Toronto line. This would give the company access to a number of points at or near the Lake front with which it has not now any connection.



CANADIAN PACIFIC RY. STATION AND GENERAL OFFICES, WINNIPEG.

On the other side of Toronto, the Toronto-Sudbury line, from near Bolton to Sudbury, via Parry Sound, will give the company an independent connection between Toronto and its transcontinental line, and will transfer a good deal of business from North Bay to Sudbury. The line is expected to be opened for traffic as far as Bala Falls, Muskoka, in June, in time for the tourist traffic.

The completion of the Guelph and Goderich Ry. during the year will open up a considerable area of new country, and the projected branch into Stratford will connect with a line from Ingersoll, an extension of the Tillsonburg, Lake Erie and Pacific Ry., now extending from Port Burwell to Ingersoll, and recently acquired by the C.P.R. The T., L.E. and P.R. Co. is authorized to construct a line to Collingwood either by Stratford or Berlin. A line is projected from Woodstock to the Niagara River, under the charter of the South Ontario Pacific Ry. In connection with this project, D. McNicoll, Vice-President, informed the St. Catharines Board of Trade in answer to an enquiry, that no decision had been reached as to the route, whether it would pass through St. Catharines or not. A Buffalo despatch, Feb. 8, stated that the C.P.R. was behind a proposal incorporated in New York State, with the title of the Buffalo Subway Ry. Co., which proposed to construct a subway from Niagara St., Buffalo, to East Buffalo, with a railway to connect with a tunnel under Niagara River. The President on the following day said the C.P.R. had nothing to do with any such proposal. Another western Ontario proposal is a line under the charter of the Western Counties Ry., from near London into Huron and Bruce counties, and still another is for a line from near London to Sarnia, under the charter of the London and St. Clair Ry. Survey parties are in the field at various points on these projected lines, and plans for the line from Woodstock to Niagara Falls, via Brantford, Hamilton and Grimsby, have been filed with the Railway Commission. Nothing, however, has been decided in regard to construction.

Western Lines Construction Plans.—On the lines west of Port Arthur, apart from the important work in connection with the second track construction between Fort William and Winnipeg, a good deal of branch line construction is contemplated. The location plans of the West Selkirk branch extension from Winnipeg Beach to near Gimli, 9.4 miles, have been approved by the Railway Commissioners, and construction will be gone on with in all likelihood this season. The principal new construction, however, in the new provinces, will be the extension of the Pheasant Hills branch westerly to Saskatoon, and thence towards the branch line which is being constructed easterly from Wetaskiwin. The extension of the Pheasant Hills branch was located through the Eagle Hills country, and some difficulty was experienced owing to the G. T. Pacific Ry. surveys crossing it at a different level. As a result of negotiations between the two interests and C. Schrieber, Consulting Engineer to the Department of Railways, an arrangement was made by which a double track line will be constructed at the points where the two routes come together, and will be used by both companies. The branch of the Calgary and Edmonton Ry. from Wetaskiwin, Alta., which is already in operation to Daysland, 50.5 miles, will be extended easterly to meet the extension of the Pheasant Hills branch. The two branches will affect a junction, and will give the C.P.R. a new and shorter line between Winnipeg and Strathcona, opposite Edmonton, than it now has. These two lines it is desired to have completed in time to handle the crops of 1907. To run through portions of the territory to the north of these two extensions, two other extensions are projected, and some construction work is likely to be done this season. These are an extension of the Manitoba and Northwestern Ry., which now has its terminus at Sheho, Sask., to Prince Albert, and the extension of the branch now terminating at Stettler, Alta., 51 miles from Lacombe, easterly for a further distance of 50 miles.

The company has power to construct a high level bridge across the Saskatchewan River for the purpose of taking the Calgary and Edmonton Ry. from Strathcona, the present terminus, into Edmonton, and the G.T.R. interests behind the G. T. Pacific Ry. have a charter authorizing the construction of a railway and general traffic bridge across the river into the city. At present both C.P.R. and G. T. Pacific engineers are engaged in taking soundings in the river opposite Ninth Ave. Press reports stated that preliminary plans had been prepared and tenders would be asked for by the C.P.R. for the construction of the piers at once, the work to be gone on with this season. We were advised, however, Feb. 17, that it had not then been definitely decided whether or not the work would be gone ahead with this season. It is meanwhile stated that negotiations are going on between the C.P.R. and G.T.P. Pacific Ry. officials in reference to the construction of a bridge jointly.

A straightening out of curvature and reduction of gradients in the Mountain district is being surveyed for, and the construction of some miles of the Kootenay Central Ry. from Golden are included in the new works contemplated in B.C.

In Feb., 1904, an order-in-council was passed authorizing the construction of a branch line from near Banff to some coal mines entirely within the Rocky Mountains Park. Plans transmitted show that the line as constructed differs from the line as located, and an order-in-council has been passed varying the original order so as to agree with the route of the line as constructed.

In connection with the invitation of tenders for the construction of the two sections of the Transcontinental Ry., the commissioners made a charge of $1 per mile for profiles and specifications. Hitherto these have been supplied free.

The G.T. Pacific Ry. has announced that the name of Prince Rupert had been selected for the Pacific terminus of the company's line, and has awarded the prizes offered in the recent competition. Miss E. M. Macdonald, Winnipeg, Man., was the winner; and special prizes were awarded to Mrs. J. Orme, Bonnechere, Ont., and R. Kirkwood, Copper Cliff, Ont., each of whom suggested Port Rupert.

In connection with the adoption of Quebec as the terminal port in Canada for the C.P.R. new Empress steamers, sailing from Liverpool, Eng., we were advised Feb. 21, that the plans for the accommodation to be provided had not progressed sufficiently for a decision to be arrived at as to what is actually required or will be done. Daily press reports stated that the railway between Montreal and Quebec was to be provided with a second track, but we were advised on the same date, that this had not been decided upon either.

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Railway Rolling Stock Notes.

The Intercolonial Ry. has ordered from Rhodes, Curry & Co., Amherst, N.S., two louble track snowplows.

The Canada Car Co. is building 30 steel underframe flat cars for the Cleveland-Sarnia Saw Mills, to be 61 ft. over end sills and 9 ft. over side sills.

The Canadian Locomotive Co. recently delivered 10 mogul locomotives to the G.T.R., and one six-wheel switcher to the West Canadian Collieries, Frank, Alta.

A report from Moncton, N.B., states that the frames have been completed for four locomotives to be built at the I.C.R. shops there. The locomotives are to be duplicates of Nos. 44 and 46.

The Intercolonial Ry. received during the month preceding Jan. 25, 37 box cars, 60,000 lbs. capacity, from Rhodes, Curry & Co., Amherst, N.S., and four parlor cars from the Crossen Car Manufacturing Co., Cobourg, Ont.

A press report recently stated that electric motor cars were to be built at the C.P.R. Angus shops for branch lines in the Province of Quebec. We were recently advised that the matter had not even been discussed by the management.

The 1,000 box cars which the G.T.R. is having built by the Canada Car Co., Montreal, will have an inside length of 36 ft., and a height of 8 ft. The 2,400 box cars which the C.C. Co. is building for the G.T. Pacific Ry., will be of the same dimensions.

The Temiskaming and Northern Ontario Ry. has under consideration the purchase of the following additional rolling stock:—Two locomotives, four first-class coaches, two baggage and express cars, twenty-five flat cars, two vans and two cafe parlor cars.

The White Pass and Yukon Ry., in addition to overhauling at its shops, Skagway, Alaska, two locomotives which it sold to the Klondike Mines Ry., Dawson, Yukon, has also overhauled one locomotive which it has sold to the Tanana Mines Ry., in Alaska.

The Temiskaming and Northern Ontario Ry., in addition to the wrecking crane and ballast unloader, the order for which was referred to in our last issue, has placed an order for a ballast plow with W. H. C. Mussen & Co., Montreal; and for a steam shovel in the U.S.

The Central Ontario Ry. has placed an order with the Canadian Locomotive Co., Kingston, Ont., for an eight-wheel locomotive, having cylinders 18 by 24 ins.; driving wheels, 63 in. diameter; weight of engine, 115,000 lbs.; weight of tender, about 75 000 lbs.; tank capacity, 3,800 gals.

The C.P.R. placed orders for the following rolling stock during the two months preceding Feb. 16: 10 freight locomotives, 5 baggage cars, 4 hand derrick cars, 100 box cars, 50 flat cars, and 10 stock cars, at its Angus shops, Montreal; and 500 steel coal cars from the Dominion Steel Car Co., Montreal.

The Locomotive and Machine Co. of Montreal has delivered 16 Pacific-type passenger locomotives to the I.C.R., and six 2½ yard Atlantic type steam shovels to the C.P.R. It is also delivering three 10-wheeled freight locomotives a week to the C.P.R. Delivery at this rate will continue until Mar. 31.

The C.P.R. during the two months preceding Feb. 16, received the following new rolling stock:—10 freight locomotives and 3 steam shovels from the Locomotive and Machine Co. of Montreal; 8 locomotives, 10 first-class cars, 20 colonist cars, 7 baggage and express cars, 659 box cars, and one dynamometer car from its Angus shops, Montreal.

The C.P.R. has ordered from the Dominion Steel Car Co., Montreal, 500 steel gondola coal and ore cars, capacity 55 tons; length of car inside body, 36 ft. 9 in.; width of car inside body, 9 ft. 7 in.; brake beams, Simplex; bearings, Canada Bronze Co. These cars will be of the Class E 12 National Type, with 12 bottom drop doors, the Canadian patents for which are controlled by the Dominion Dump Car Co.

The Intercolonial Ry. received the following additional rolling stock between Jan. 25 and Feb. 16:—10 Pacific type passenger locomotives from the Locomotive and Machine Co., of Montreal; 79 box cars, 80,000 lbs. capacity from Rhodes, Curry & Co., Amherst, N.S.; 22 box cars, 60,000 lbs. capacity, from the Crossen Car Manufacturing Co., Cobourg, Ont.; and 5 box cars, 60,000 lbs. capacity, from another Canadian builder.

The question of the operation of the Vernon River loop and Montague branches of the Prince Edward Island Ry. by motor cars, in place of steam locomotives and cars, has been under the consideration of the operating officials, but we were advised Feb. 1, it had not been passed upon by the Department of Railways. The operation of these, as well as other small branches, by some means, less expensive than steam, during the summer months at any rate, it is considered would be of advantage to the line.

The Dominion Coal Co., owning the Sydney and Louisburg Ry., in its report for 1905, says:—"Recognizing that an ample equipment of rolling stock, particularly cars, is a necessity for rapid delivery, for avoiding delays to ship, and for saving in operating expenses generally, it was decided this year to purchase 150 fifty-ton steel cars at a cost of $162,000. The greater number of the company's wooden cars have been remodelled and practically rebuilt in the company's own shops, and this part of the equipment is now in a thoroughly efficient and serviceable condition; this repair work has been charged to operating expenses.

The switching locomotive recently completed at the St. Thomas, Ont., shops of the Michigan Central Rd., was the last of an order for six. These locomotives are being used on the grades between Niagara Falls and Montrose yard, and at Windsor, Ont. The general dimensions follow:

CYLINDERS.—Diameter, 19 in.; stroke of piston, 26 in.

BOILER.—Diameter of boiler shell, 65 in. inside; number of flues, 282; length, 132 in.; diameter of flues, 2 in.

FIREBOX.—Width at top, 55 in.; width at bottom, 42 in.; length, inside, 108⅛ in.; height, 68⅛ in.

WHEELS.—Six Drivers; diameter of wheel castings, 44 in.

WEIGHT.—Total, 135,900 lbs, all on drivers.

TANK.—Capacity, 3,650 gals. water; 9 tons coal; number of wheels, 8; diameter of wheels, 33 in.

The G.T.R. placed the following orders for rolling stock during 1905: 10 ten-wheel passenger locomotives with the American Locomotive Co., New York; 10 ten-wheel passenger engines and 55 Richmond compound consolidation freight engines with the Locomotive and Machine Co. of Montreal; 15 Richmond compound mogul engines with the Canadian Locomotive Co., Kingston, Ont.; 250 box cars, 60,000 lbs. capacity, with Rhodes, Curry & Co., Amherst, N.S., 1,000 box cars, 60,000 lbs. capacity; 8 smoking cars and 42 first-class coaches with the Canada Car Co., Montreal; 14 baggage cars, 3 parlor-cafe cars, 28 caboose cars, at its own shops, Point St. Charles, Montreal; 8 caboose cars at its own shops, Port Huron, Mich. Of these orders there were delivered up to Dec. 31, 1905, seven locomotives from the Canadian Locomotive Co., 150 box cars from the Canada Car Co.; 28 cabooses and four baggage cars from the Montreal shops, and eight cabooses from the Port Huron shops. The combination consolidation freight engines being built at Montreal are somewhat of a departure from the company's former standard, and will be the standard for the future.

TRADE AND SUPPLY NOTES.

The matter which appears under this heading is compiled, in most cases, from information supplied by the manufacturers of, or dealers in, the articles referred to, and in publishing the same we accept no responsibility. At the same time we wish our readers to distinctly understand that we are not paid for the publication of any of this matter, and that we will not consider any proposition to insert reading matter in our columns for pay or its equivalent. Advertising contracts will not be taken with any condition that accepting them will oblige us to publish reading notices. In other words, our reading columns are not for sale, either to advertisers or others.

The Vulcan Iron Works Co., Toledo, Ohio, has issued a characteristic calendar for 1906.

W. H. Marshall, recently elected President American Locomotive Co., assumed his duties Feb. 15.

Jas. Smart, sr., founder of the James Smart Manufacturing Co., Limited, Brockville, Ont., died there Jan. 27.

Steam Shovel News, published at Toledo, Ohio, in the interests of the Vulcan Iron Works Co., will in future be issued monthly.

Harry A. Norton, of Boston, Mass., and Coaticook, Que., sailed on Feb. 3 for a trip round the world in the interest of Norton Jacks.

The Canadian Bronze Co. has passed a by-law that its affairs shall be managed by a board of five directors, of whom three shall form a quorum.

The Robb Engineering Co., Amherst, N.S., has received an order through M. J. Heller, of San Francisco, for a 150 h.p. tandem compound engine for the Nipissing Mining Co., Cobalt, Ont.

The American Locomotive Co. has issued as a booklet a paper on four-cylinder balanced compound locomotives, read by F. J. Cole, its Mechanical Engineer, before the Railway Club of Pittsburg, Pa.

M. Beatty & Sons, Limited, Welland, Ont., will apply this session of the Ontario Legislature for an act confirming a by-law of the town of Welland, fixing the assessment of the property of the company at $10,000 for a period of twenty years.

The Canadian Westinghouse Co. has issued a special booklet describing and illustrating the electrical apparatus which it manufactures at Hamilton, Ont. It has also issued circulars no. 1126, describing Type C Transformers; no. 1127, describing Control Apparatus and Trolleys for single-phase Railway Systems, and no. 1107, describing Westinghouse Automatic Circuit-breakers Carbon Brake.

The Montreal Steel Works, Ltd., has decided to issue at par the remaining 1,000 shares of ordinary stock, $100,000, which was authorized at a shareholders' meeting held on Mar. 31, 1905. The management considers that in order to continue the programme of extension to the works it is necessary to increase the capital stock at an early date. The capital stock is $800,000 of preferred, authorized and paid-up, and 7,000 shares of $100 each, authorized ordinary shares, of which 4,000 have been subscribed and paid up.

The Chicago Pneumatic Tool Co.'s 4th annual report, for 1905, issued recently, shows that the profits for the year were $852,612.56. After writing off deprecation, etc., and paying 4% dividend, $315,134.39 was carried to surplus account. The company's assets are placed at $10,000,718.21—showing a surplus over liabilities of $536,-292.15. The report states that the year's sales were the largest in the company's history. Mention is also made of the acquirement of the Canadian Pneumatic Tool Co., Ltd., Montreal. The capacity of the various plants was materially increased during the year, still the capacity is insufficient and a further increase is under consideration.

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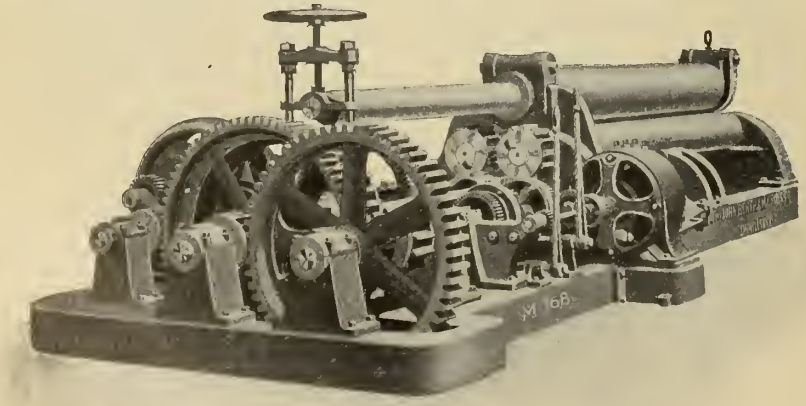

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Canadian Northern Ry. Earnings, etc.

Gross earnings, working expenses, net profits, increases or decreases over 1904-05, from July 1, 1905:

	Earnings.	Expenses.	Net Earnings.	Increase or Decrease.
July..	$395,100	$ 252,600	$ 142,500	$ 51,400+
Aug..	357,900	246,200	111,700	12,200+
Sept..	378,500	268,300	110,200	14,000+
Oct..	557,100	298,900	258,200	113,600+
Nov.	566,800	341,700	225,100	68,700+
Dec.	437,800	295,600	142,200	7,100+
	$2,693,200	$1,703,300	$989,900	$267,000+

Mileage in operation 2,100 against 1,579 in Dec., 1904. The average mileage in operation during the six months ending Dec. 31, 1905, was 1,911 against 1,438 miles for same period 1904.

Approximate earnings for Jan., $349,900, against $264,000 for Jan., 1905.

C.P.R. Earnings, Expenses, etc.

Gross earnings, working expenses, net profits, increases or decreases over 1904, from July 1, 1905:—

	Earnings.	Expenses.	Net Profits.	Increase or Decrease.
J'ly	$4,629,174.95	$2,991,397.29	$1,449,652.14	$188,125.52+
Aug.	4,796,733.98	3,005,088.07	1,791,645.91	263,715.48+
Sept.	4,872,575.38	3,086,565.35	1,776,010.05	507,202.49+
Oct.	5,722,767.30	3,448,696.12	2,274,071.18	707,957.27+
Nov.	5,741,543.12	3,380,232.13	2,316,310.99	691,736.25+
Dec.	5,619,182.83	3,272,599.52	2,346,583.31	683,914.48+
	$31,381,977.56	$19,194,578.46	$12,187,399.10	$3,042,651.49+

Approximate earnings for Jan., $4,409,000, against $3,246,000 for Jan., 1905.

DULUTH, SOUTH SHORE AND ATLANTIC RY.—Gross earnings for Dec., $253,792.42; net earnings $93,323.94, against $207,112.98 gross and $72,328.15 net for Dec., 1904. Net earnings for six months ended Dec. 31, $573,268.88 against $469,932.77 for same period 1904. Approximate earnings for Jan., $235,863 against $194,150 for Jan., 1905.

MINERAL RANGE RY.—Approximate earnings for Jan., $61,303, against $54,360 for Jan., 1905.

MINNEAPOLIS, ST. PAUL AND SAULT STE. MARIE RY.—Gross earnings for Dec., $914,689.43; net earnings, $444,587.74, against $735,760.93 gross and $363,025.67 net for Dec., 1904. Net earnings for six months ended Dec. 31, $3,451,749.04 against $2,464,339.54 for the same period 1904. Approximate earnings for Jan., $847,263 against $614,290 for Jan., 1905.

Canadian Pacific Railway Land Sales.

	Acres.		Amount.	
	1905-06.	1904-05.	1905-06.	1904-05.
July...	58,477.37	36,425.75	$304,795.23	$177,473.94
Aug...	58,542.44	15,669.90	327,579.63	88,735.88
Sept..	111,479.71	16,470.02	556,642.64	73,642.96
Oct...	79,168.41	23,792.84	412,237.95	104,843.47
Nov..	200,441.36	23,392.88	1,065,512.03	112,261.70
Dec....	52,288.20	32,196.59	282,095.12	142,538.40
Jan....	48,249,38	34,500 41	273,115.75	141,750.50
	608,576.89	182,448.40	$3,221,978.35	$1,041,246.85

Grand Trunk Ry. Earnings, Expenses, etc.

The following statement of earnings, supplied from the Montreal office, includes the G.T. of Canada, the G.T. Western, and the Detroit, Grand Haven & Milwaukee Rys.

	1905.	1904.	Increase.	Decrease.
Jan	$2.896.439	$2,674,242	$222,197	....

GRAND TRUNK RY. CO.

Subject to audit, the accounts for the half-year to Dec. 31, 1905, show the following results:

Gross receipts		£3,289,000
Working expenses, including special appropriation of £30,000 to close the bridge renewal account		2,345,900
Net receipts		£ 943,100
Net revenue charges for the half-year, less credits		513,800
Balance		£ 429,300
Deduct Canada Atlantic deficiency for the year	£18,000	
Less Detroit, Grand Haven and Milwaukee surplus for the half-year	£17,300	700
Surplus		£ 428,600

This surplus of £428,600 added to the balance of £7,400 from June, 1905, makes a total amount of £436,000 available for dividend, which will admit of the payment of the dividends for the half-year on the 4% guaranteed stock and first and second preference stocks, and a dividend of 2% for the year on the third preference stock, leaving a balance of about £4,200 to be carried forward. The accounts of the Grand Trunk Western Ry. for the half-year show a surplus of £18,200, which amount is carried forward to the current half-year.

MAINLY ABOUT PEOPLE.

A. L. Killaly, C.E., Cardinal, Ont., wa- married Feb. 7, to Miss S. Greenwood, Corns wall, Ont.

Mrs. D. H. Keeley, wife of the Superintendent of Government Telegraphs, Ottawa, died there Feb. 15.

W. Walker, Superintendent Dominion Transport Co., Toronto, died at his residence there Feb. 22, aged 61.

D. W. Campbell, Canadian Manager Elder, Dempster Steamship Co., left Montreal, Feb. 15, for a trip to Mexico.

S. H. Haycock, for many years engaged in construction work on the St. Lawrence River canals, died at Ottawa, Jan. 29.

Lieut.-Col. Stark, Manager Dominion Transfer Co., Montreal, was married Feb. 26, to Mrs. T. J. Alloway, of that city.

P. Lund, of Breckenridge & Lund, railway contractors, etc., Cranbrook, B.C., was married recently to Miss A. Couzens, Chatham, Ont.

Mrs. Gorrie, wife of A. J. Gorrie, General Superintendent Great Northern Ry., Montreal, has been suffering from pleurisy for some time.

W. Molson Macpherson, agent of the Dominion, Leyland & Manchester Steamship lines at Quebec, and Mrs. Macpherson, are visiting India.

Major H. O. Wicksteed, who died at Ottawa recently, was uncle of H. K. Wicksteed, Chief Locating Engineer, Mackenzie, Mann & Co., Toronto.

R. Forget, M.P., President Richelieu and Ontario Navigation Co., was entertained at dinner by the Sorel, Que., employes of the company, Feb. 15.

D. D. Mann, accompanied by Mrs. Mann and son and Miss Williams, left Toronto early in Feb. for the Mediterranean, intending to return early in May.

Mrs. J. M. Egan, sister of J. F. Dolan, City Passenger Agent, Richelieu and Ontario Navigation Co., Montreal, died suddenly at Butte, Montana, early in Feb.

F. P. Brady, General Superintendent C.P.R., North Bay, Ont., was presented with a cabinet of silver and a table by the local Knights of Columbus, Feb. 12.

G. Ham, of the C.P.R. head office staff, returned to Montreal from Preston Springs, Ont., Feb. 8, and subsequently went on a trip to Winnipeg and other Western points.

R. J. Cherry, formerly in the C.P.R. service on the Pacific Division, has been appointed Superintendent Dairy Car Service, Aitcheson, Topeka and Sante Fe Rd.

W. E. Fowler, Master Car Builder C.P.R., who underwent an operation for appendicitis at King's Hospital, Detroit, Mich., early in Feb., is convalescing satisfactorily.

A. E. Trites, railway contractor, Moncton, N.B., recently met with a rather severe accident while inspecting the work in progress on a line he is constructing in Maine.

M. J. B. Whyte, who has resigned his position as General Freight and Passenger Agent, White Pass and Yukon Route, left Vancouver, B.C., Feb. 9, for a trip to Ireland.

A. B. Newell, herctofore Vice-President and General Manager White Pass and Yukon Route, has gone into railway supply manufacturing business with a Chicago firm.

E. A. James, Manager Canadian Northern Ry., Winnipeg, who is on extended leave of absence, owing to ill-health, is staying at Los Angeles, California, with his wife and son.

W. M. Kirkpatrick, Export Freight Agent, C.P R., sailed from St. John, N.B., on the SS. Manitoba, Feb. 17, for Great Britain, expecting to be gone about six or seven weeks.

Miss H. Butler, sister of M. J. Butler, Deputy Minister Railways and Canals, Ottawa, was married at Belleville, Ont., Feb. 7, to W. Featherstonhaugh, C.E., Edmonton, Alta.

C. M. Hays, Second Vice-President and General Manager, G.T.R., accompanied by Mrs. Hays and family, left Montreal, Feb. 11, for England, where they will remain for some weeks.

The engagement is announced of C. E. McPherson, General Passenger Agent C.P.R., Winnipeg, to Miss Josephine Troop, daughter of Howard D. Troop, steamship agent, etc., St. John, N.B.

The engagement has been announced of Miss H. Wainwright, daughter of W. Wainwright, General Assistant and Comptroller, G.T.R., Montreal, to A. R. Chapman, St. Stephen, N.B.

G. B. Johnson, C.E., son of ex-Mayor Johnson, Belleville, Ont., has been appointed assistant engineer in charge of the Naziang section of the Shanghai-Nanking Ry., Naziang, China.

R. G. Foster, who has retired from the position of superintendent of the Montreal Rolling Mills, after 35 years' service, was presented with a gold watch, chain and locket, by the staff, Feb. 2.

Lady Shaughnessy, wife of the President C.P.R., and Miss Shaughnessy; C. R. Hosmer, director C.P.R., Mrs. and Miss Hosmer, sailed from New York, Feb. 17, for a tour in the Mediterranean.

R. E. Welsh, of the C.P.R. Assistant Freight Traffic Manager's office, Winnipeg, Man., was presented recently with a travelling case, and entertained at dinner by his fellow clerks, on leaving the service.

J. G. Scott, General Manager Quebec and Lake St. John Ry., is expected to return to Quebec early in March, from London, Eng., where he has been attending the meeting of bondholders, and conferring with the directors.

Judge Snider, of Hamilton, Ont., has been appointed third arbitrator in the expropriation proceedings of the G.T.R. against a number of firms interested in the land required for the new Union Station, Toronto.

F. Nicholls, President Canadian General Electric Co., etc., Toronto, was recently presented with a shield by members of the Royal Canadian Yacht Club in appreciation of his services in connection with the Canada Cup races of 1905.

R. Beatty, who died at Hamilton, Ont., recently, was Purchasing Agent for the Great Western Ry. at the time of its amalgamation with the G.T.R., and remained with the latter company for some years in its purchasing department.

W. Carroll, who died at Hamilton, Ont., Feb. 12, aged 84, was flagman at the Thames St. crossing of the G.T.R., Hamilton, for over 25 years, and only retired from active work about six months ago. He was father of J. Carroll, G.T.R. station agent, Hamilton.

H. J. Lamb, C.E., who was placed in charge of the work of the Department of Public Works, including work on harbors and rivers in Western Ontario, at London, Ont., on the appointment of J. C. Sing to Toronto, has been permanently appointed at London.

D'A. C. Coleman, chief clerk to the General Superintendent Central Division C.P.R., Winnipeg, was presented with a dining-room suite by the officials of the division on Feb. 17, in connection with his marriage to Miss A. Grant, of Calgary, which took place Feb. 21.

H. W. Weller, Manager in Canada for Babcock & Wilcox, is an enthusiastic photographer. The Montreal Standard has recently published a number of illustrations of "Montreal after Nightfall," from photographs taken by Mr. Weller on residential streets.

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J. Hendry, President Vancouver, Westminster and Yukon Ry., Vancouver, B.C., who had his leg broken while on the trip with the Canadian Manufacturers' Association to Great Britain in 1905, has sufficiently recovered to be able to walk with the aid of a couple of canes.

The following advertisement appeared in the Toronto Globe recently:—

WANTED—INFORMATION AS TO THE whereabouts of one T. W. Holland, late General Manager of the Republic & Grand Forks Ry. Co., of Grand Forks, B.C.; address the undersigned, who will pay a liberal reward. C. F. Packard. Copeland, Idaho.

R. H. McCready, at one time station agent on the I.C.R. at Aulac, N.B., has been appointed assistant to the General Superintendent, Bangor and Aroostook Rd., with special charge of operations upon a newly constructed branch. For some time previously he had been Trainmaster.

F. Grundy, Vice-President; J. H. Walsh, General Manager, and E. O. Grundy, General Freight and Passenger Agent, Quebec Central Ry., were entertained at dinner by citizens of Sherbrooke, Que., Jan. 30, in connection with the retirement of the first-named from the position of General Manager, and the promotion of the two latter.

W. A. Brown was presented recently with a cabinet of silver by business men of Port Arthur, Ont., and a gold watch by the Canadian Northern Ry. employes there, on his promotion from the position of Superintendent at that point to that of General Superintendent at Winnipeg. The citizens presented Mrs. Brown with a gold bracelet.

W. S. Painter, who has been appointed architect, C.P.R., Montreal, was born in New York, in 1876, and during his professional career has had to deal with the planning and construction of a number of large buildings in the U.S. and Canada. He has been located in Montreal since 1891, and was recently engaged in connection with the construction of the G.T.R. roundhouses at Mimico, Ont., and Turcot, Que.

H. W. Gays, General Manager; G. H. Phillips, General Freight and Passenger Agent; H. K. Gays, Assistant General Passenger Agent, New York and Ottawa Ry., and W. Gays, also in the employ of the same company, are among the incorporators of the Quebec and Ontario Lumber Co., which has been incorporated under the Dominion Companies' Act, with offices at Ottawa, and a capital of $20,000.

H. J. Beemer, railway contractor and promoter, formerly of Ottawa, and now of New York, is engaged with a number of others in prosecuting O. A. Rogers, of Phœnix, Ariz., on a charge of embezzling $300,000. Mr. Beemer with a number of others joined a mining syndicate, and the alleged embezzlement took place in connection with some of its transactions. It is reported in Ottawa that Mr. Beemer has lost $200,000 in the concern.

F. Shaughnessy, son of Sir Thomas G. Shaughnessy, President C.P.R., accompanied by his tutor, is on a trip round the world, travelling all the way via C.P.R. trains and steamers. Montreal was left Jan. 19, and St. John, N.B., two days later. On reaching Liverpool, Eng., they will go on board the C.P.R. str. Monteagle, which is being sent out to Hong Kong to strengthen the Pacific Ocean fleet, and from Hong Kong will travel to Vancouver, B.C., by one of the Empress steamers on the regular line. They expect to return to Montreal during May.

Hon. L. P. Brodeur, who has been appointed Minister of Marine in succession to the late Hon. R. Prefontaine, was born at Belœil, Que., Aug. 21, 1862. He was educated at St. Hyacinthe College, graduating LL.B. at Laval University, Montreal, 1884. He practised law for some years, and became a newspaper editor in 1896. He was elected to the House of Commons in 1891, and was re-elected in 1896, and 1900 and 1904. From 1896 to 1904 he filled the position of Deputy Speaker and Chairman of Committees, and from 1904 to the date of his present appointment was Minister of Inland Revenue.

The following item, referring to W. Whyte, Second Vice-President C.P.R., has been reproduced by the Winnipeg Tribune from its issue of Feb. 15, 1896: "Sir Donald A. Smith is in the city. Regarding Wm. Whyte, of the C.P.R., and rumored promotion, Sir Donald said: 'I would like to say that no promotion which the C.P.R. could give Mr. Whyte would exceed his abilities or his merits. In him the company has always had one of its ablest officials.'" At that time Mr. Whyte was General Superintendent Western Division, his promotion to the position of Manager Western Lines taking place May 3, 1897.

Mrs. Jas. Dobson, of Toronto, mother of C. A. Dobson, Dominion Express Agent, Hamilton, Ont., celebrated her 90th birthday recently. She was the second daughter of Capt. Wm. Moore of the Township of York, who fought under General Brock in the war of 1812. Her late husband was the first reeve and justice of the peace of Yorkville in 1852. He fought as a Government officer in the rebellion of 1837. He was appointed postmaster of Yorkville, which position he held until his death in 1894. His daughters, the two Misses Dobson, who live with their mother, still conduct the Yorkville post office.

S. Ennes, who has been appointed Trainmaster G.T.R. Western Division, Durand, Mich., was born at St. Louis, Mo., Mar 19, 1862, and entered railway service in 1881, his record being: July, 1881, to Jan., 1882, operator Texas and Pacific Ry.; Jan., 1882, to Aug., 1884, brakeman Southern Pacific Rd.; Aug., 1884, to May, 1886, operator, Missouri Pacific Rd.; May, 1886, to June, 1893, Train Dispatcher, same road; June 1893, to 1898, Chief Train Dispatcher, same road; 1898 to 1899, Inspector of dispatching, same road; 1899 to 1901, Instructor standard rules, same road; 1901 to Mar., 1904, Division Superintendent, same road; Mar., 1904, to Dec. 1, 1905, Superintendent Western Maryland and Baltimore Rd.

C. F. Wenham, formerly General Agent, C.P.R., Chicago, Ill., has been arrested in New York on a charge of embezzling $54,473.35, and has been admitted to bail. In the complaint leading up to the arrest, it is set forth that the C.P.R., on April 15, 1903, purchased from Elder, Dempster & Co. a line of steamships plying between St. John and Quebec and points in England; that Wenham was General Agent for the company in Chicago; that he failed to render bi-monthly statements of the sale of passenger tickets made by him; that he changed dates on certain tickets to make it appear that they had been sold prior to the transfer of the business of the line and returned by purchasers, and that other reports that were made were false. In the Federal courts in Chicago, a judgment for $54,473.35 was obtained against Wenham Dec. 8, and in order to recover this sum the action was instituted in New York, as Wenham has gone there to reside.

Evidence of the value which is attached to the accuracy and up-to-date nature of THE RAILWAY AND MARINE WORLD'S information in regard to the development of transportation facilities, etc., was recently afforded by the receipt of an order, entirely unsolicited, to supply the paper regularly to His Majesty's War Office, St. James' Square, London, Eng.

Railway Commissioners' Freight Orders.

In our January issue, pg. 13, we gave an order issued on Nov. 28, 1905, in connection with interswitching at Lindsay, Ont. It appears that a mistake was made in the issuance of the order, and on Nov. 30 the Board issued a supplementary order directing that all that portion of the order of Nov. 28 following and including paragraph 3 be struck out, and the following substituted therefor:

3. That pending such further evidence and consideration and until further order, the following provisions shall apply subject to any order of the Board for the increase or decrease of rates on traffic carried in the meantime:

1. That the rates to be charged for such tariff shall be those provided for by any joint tariffs in existence between the railway companies interested, and, in the event of there being none, the rates charged by the G.T.R. between the same points; and in the absence of either, the rates charged by the C.P.R., or the Lindsay, Bobcaygeon and Pontypool Ry. Co., between the same points.

2. That in the division of the said rates, the G.T.R. shall be entitled to charge and receive the following tolls for switching freight and live stock traffic from and to its connection at Lindsay St. with the tracks of the C.P.R., or the Lindsay, Bobcaygeon and Pontypool Ry., viz.:

(a) To and from all tracks and sidings used for the purpose of loading and unloading cars, owned or controlled by, or connecting with the lines of the G.T.R., on the east side of the River Scugog, $3 per carload of 40,000 lbs., or less; $4 per carload of over 40,000 lbs., but not over 60,000 lbs.; and $5 per carload of over 60,000 lbs.; no extra charge to be made for switching the empty car in the opposite direction.

(b) To and from all tracks and sidings used for the purpose of loading and unloading cars owned or controlled by or connecting with the G.T.R. lines on the west side of the River Scugog, excepting such sidings adjoining the G.T.R. freight shed or sheds, as may be necessary for the convenient transfer thereto and therefrom of freight ordinarily handled by the G.T.R. employes; $4 per carload of 40,000 lbs. or less; $5 per carload of over 40,000 lbs. but not over 60,000 lbs.; and $6 per carload of over 60,000 lbc.; no extra charge to be made for switching the empty car in the opposite direction.

3. That all other devices, such as free or assisted cartage, or cartage allowances, intended to equalize the facilities of the respective railways for the collection and delivery of freight at or near Lindsay, except such as may be published in the freight tariffs of the companies, are prohibited.

SWITCHING AT OWEN SOUND.

In the matter of the complaint of John Wright & Sons, millers, of Owen Sound, Ont., under sec. 254 of the Railway Act, 1903, that the rate of 2½ c. per 100 lbs., charged by the C.P.R. Co. on grain from the railway company's elevator at Owen Sound to the public siding most convenient to the complainant's mill, is excessive and unreasonable in itself, and discriminatory with respect to the rates charged by the railway company for haulages to and from certain private sidings at Owen Sound; filed under reference 18069, file 727. Upon hearing all parties concerned and the reports of its Chief Traffic Officer, the Board doth order that the rate on grain purchased f.o.b. cars at the railway company's elevator at Owen Sound, from the elevator track to unloading sidings within the company's terminal at Owen Sound, do not exceed 1c. per 100 lbs. on the actual quantity loaded in the car, with a minimum of 40,000 lbs. for each carload.

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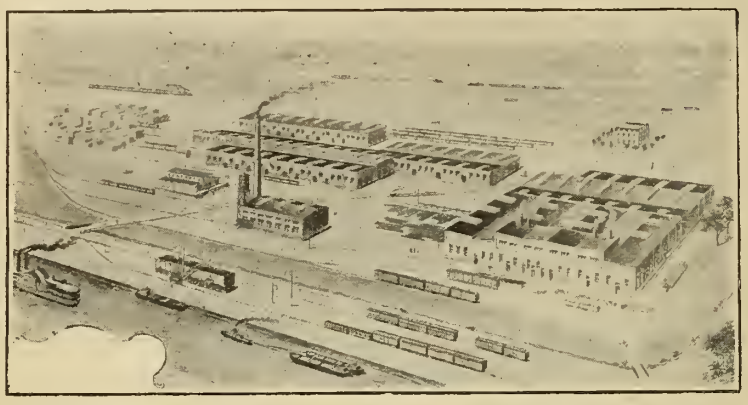

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The Canadian Freight Association has submitted for the consideration of the Board of Railway Commissioners proposed changes in and additions to the Canadian Freight Classification, which it is proposed to issue as supplement 6.

Canadian Northern Ry. Construction.

If it be decided to build the new terminal, offices, etc., on the site of the present offices in Winnipeg, the C.N.R. officials will vacate their present quarters in the spring, and will locate in rented offices in the Scott Block and in the Canadian General Electric Co.'s building. The erection of the new building will be the most important of the company's operations in Winnipeg during the current year. With the completion of the main line to Edmonton, Alta., and the extension of what was at one time regarded as the main line from Melfort to Prince Albert, Sask., W. Mackenzie, the President, recently announced that the company would devote its attention to branch line construction and the development of the territory through which the main line runs. Steel was laid into Prince Albert from Melfort, Jan. 26, and a yard has been laid out there. A temporary bridge has been constructed across the river, and the permanent bridge, the floor of which is 90 ft. above the level of the river, is about completed. Ballasting and other work is being gone on with, and a regular train service is expected to be placed in operation early in the spring.

The new construction arranged for, or projected for, the current season, includes a start on the branch from near Erwood, Sask., towards Hudson Bay, the contract for which is reported to have been let to James Cowan, of Kirkfield, Ont. Engineers have been in the field locating this line since Nov., 1905, and a large number of teams have been engaged since early in Jan. hauling camp equipment and supplies from Erwood northerly. Another branch line upon which work will be gone on with during the season will be an extension of the branch from Swan River. This is a line midway between the main line and the Prince Albert branch, and will open up a very fertile stretch of country.

C.P.R. Western Officials' Conference.

A conference of officials of the C.P.R. Western Lines was held at Field, B.C., Feb. 12 and 13, to which the following were invited, the address being Winnipeg, unless otherwise mentioned: W. Whyte, Second Vice-President; R. Marpole, General Superintendent, Vancouver; G. J. Bury, General Superintendent; R. R. Jamieson, General Superintendent, Calgary; A. Price, Supt. of Transportation; O. O. Winter, Superintendent, Fort William; J. T. Arundel, Superintendent; G. E. Graham, Superintendent Winnipeg Terminals; J. J. Scully, Superintendent, Brandon; J. Brownlee, Superintendent, Moose Jaw, Sask.; J. Niblock, Superintendent, Calgary, Alta.; G. Erickson, Superintendent, Cranbrook; T. Kilpatrick, Superintendent, Revelstoke, B.C.; J. S. Lawrence, Superintendent, Nelson, B.C.; F. F. Busteed, Assistant Chief Engineer; J. E. Schwitzer, Principal Assistant Engineer; Frank Lee, Division Engineer; N. E. Brooks, Division Engineer, Calgary; C. Cartwright, Division Engineer, Vancouver; J. Callaghan, Div. Engr. Construction; W. A. James, Div. Engr. Construction; H. B. Lake, Chemist; B. S. Jenkins, Gen. Supt. Telegraphs; S. Edwards, Supt. Construction T.D.; J. Wilson, Supt. Telegraph Dept., Vancouver; J. Tait, Asst. Supt. Telegraph Dept.; R. Barnwell, Fuel, K. and Tie Agent; F. T. Griffin, Land Commissioner; J. L. Doupe, Asst. Land Commissioner; J. S. Dennis, Asst. to 2nd Vice-President, Calgary; F. W. Peters, Asst. Freight Traffic Manager; W. B. Lanigan, General Freight Agent; B. W. Greer, General Freight Agent, Vancouver; H. E. MacDonell, General Freight Agent, Nelson, B.C.; H. H. Abbott, Asst. General Freight Agent, Calgary, Alta.; W. C. Bowles, Asst. General Freight Agent, Vancouver, B.C; C. H. Smith, Asst. General Freight Agent, Vancouver, B.C.; C. E. McPherson, General Passenger Agent; H. W. Brodie, Asst. General Passenger Agent; E. J. Coyle, Asst. General Passenger Agent, Vancouver; W. Bell, Supt. S.,D. & P. Car Dept.; J. Sparks, Asst. General Baggage Agent; S. C. Sykes, Asst. Supt. S.,D. & P. Car, Vancouver, B.C.; W. Cross, Asst. to 2nd Vice-President; G. Hall, Asst. Supt. Motive Power; G. H. Eaton, Asst. Master Car Builder; C. H. Temple, Master Mechanic; J. Cardell, Master Mechanic, Calgary; S. Phipps, Master Mechanic, Revelstoke; S. J. Hungerford, Supt. Loco. Works; H. H. Boyd, Asst. Electrical Engineer; J. A. Macgregor, Asst. Supt. Car Service; W. O Miller, Car Service Agent, Vancouver; W. B. Harris, Car Distributor, Calgary; W. H. D'Arcy, General Claims Agent; J. N. Brooks, Freight Claims Agent; J. Jones, Freight Claims Agent, Vancouver, B.C.; L. O. Genest, General Storekeeper; F. E. Gautier, Purchasing Agent; J. P. O'Leary, Supt. Hotel Construction; G. Ford, Supt. Dominion Express; L. P. Stockett, General Manager Pacific Coal Co., Bankhead, Alta.

A special train for the conveyance of the officials left Winnipeg Feb. 10 at 2.20 o'clock, reaching Field Feb. 12 at 9.40. Returning Field was left Feb. 13 at 2.30 o'clock, and Winnipeg reached Feb. 15 at 11. W. Whyte presided at the meeting, A. Price acting as Secretary. The following was the programme:

MONDAY, FEBRUARY 12.

10.00 to 11.30—"How to Improve Our Passenger Service" (Traffic Officer's Standpoint), C. E. McPherson. "How to Improve Our Passenger Service" (Operating Officer's Standpoint), R. Marpole. Discussion led by W. Bell.

11.30 to 12.30—"Block Signalling, and How It Can Be Advantageously Applied On Our Line," F. Lee. Discussion led by O. O. Winter

14.30 to 15.30—"How to Secure the Maximum Service From Cars," J. A. Macgregor. Discussion led by J. T. Arundel.

15.30 to 16.30—"How Freight Claims Can Be Reduced," W. H. D'Arcy. Discussion led by B. W. Greer.

16.30 to 17.30—"Roundhouse Practice," C. H. Temple. Discussion led by S. J. Hungerford.

17.30 to 18.30—"Saving Effected by Grade Reductions," F. F. Busteed. Discussion led by G. Erickson.

20.30 to 21.30—"Car Inspection," G. H Eaton. Discussion led by T. Kilpatrick.

TUESDAY, FEBRUARY 13.

10.00 to 11.00—"Organization," G. J. Bury. Discussion led by J. E. Schwitzer.

11.00 to 12.00—"Best Methods to Adopt to Secure Competent Engine Crews," G. Hall. Discussion led by S. Phipps.

12.00 to 13.00—"Water Treatment," W. Cross. Discussion led by H. B. Lake.

14.30 to 16.00—"The Effect of Train Service in Securing Competitive Freight," F. W. Peters. "Prompt Handling of Competitive Freight," R. R. Jamieson. Discussion led by H. E. Beasley.

16.00 to 17.00—"Economic Use of Western Coals," R. Barnwell. Discussion led by J. Brownlee.

17.00 to 18.00—"Relation of the Telegraph to the Operating Department," B. S. Jenkins. Discussion led by J. S. Lawrence.

20.00 to 21.00—"Purchase and Handling of Stores," F. E. Gautier. Discussion led by L. O. Genest.

TRANSPORTATION APPOINTMENTS.

Canadian Pacific Ry.—W. F. Tye, Chief Engineer, having resigned to go into construction work, F. P. Gutelius, Engineer of Maintenance of Way, is acting as Chief Engineer.

W. S. Painter has been appointed Architect for the company, with office at Montreal. The position is a new one.

P. B. Earle, of the Fourth Vice-President's office, is discharging the duties of Export Freight Agent at Montreal, during the absence in Great Britain of W. M. Kirkpatrick.

C. Spencer, heretofore conductor on the Montreal-Ottawa run, has retired, and has been given a position as travelling conductor over the Eastern Division. He will inspect the cleanliness and ventilation of the cars, encourage the men in being careful about their personal appearance; attention and politeness to passengers, and generally to give the younger conductors and train men the benefit of his experience.

E. Marshall, heretofore locomotive foreman, Hochelaga, Que., has been appointed locomotive foreman, Outremont, Que., succeeding A. A. Scott.

—. Nowell, heretofore locomotive foreman Angus shops, Montreal, has been appointed night-foreman at Outremont, Que., succeeding J. Wilkinson, promoted.

J. Wilkinson, heretofore night-foreman, Outremont, Que., has been appointed locomotive foreman, Hochelaga, Que., succeeding E. Marshall.

A. A. Scott, heretofore locomotive foreman at Outremont, Que., has been appointed Locomotive Inspector, Angus shops, Montreal.

—. Hudson, heretofore erecting shop foreman, Carleton Jct., Ont., has been appointed locomotive foreman, Ottawa.

C. A. Stark, heretofore locomotive foreman, Ottawa, has been appointed general foreman, Carleton Jct., Ont.

T. Mullins has been appointed chief clerk Toronto city ticket agent's office, vice P. D. Sutherland, promoted.

The following changes have been made in the district of the roadmasters on the Ontario Division west of Toronto:—Roadmaster W. Code's district will extend from Toronto Jct. to London Yard, and from Guelph Jct. to Guelph. Roadmaster A. McAuley's district will extend from the east end of London yard to Windsor. J. E. Steele, has been appointed Roadmaster with jurisdiction over the Ingersoll and Port Burwell branches (the old Tillsonburg, Lake Erie and Pacific Ry.), with office at Woodstock, Ont., temporarily.

J. N. Brooks is acting Freight Claims Agent, Central and Western Divisions. We are advised that it is not expected to appoint a successor to R. E. Larmour, heretofore Freight Claims Agent for the divisions for some time.

W. S. Merchant has been appointed travelling passenger agent at St. Louis, Mo., succeeding C. E. Benjamin, promoted.

Percy D. Sutherland, heretofore chief clerk in the Toronto city ticket agent's office, has been appointed chief clerk of the passenger branch in the office of the General Agent for China, Japan, etc., at Hong Kong, succeeding H. B. Carter, resigned. Mr. Sutherland sailed from Vancouver Feb. 19.

T. J. Smith, heretofore with the Great Northern Ry., U.S., at Seattle, Wash., has been given a position in the C.P.R. freight offices in Liverpool, Eng., immediately under J. J. Gilbertson, the company's agent there.

H. McMurtrie, heretofore C.P.R. representative at Philadelphia, Pa., having resigned, F. W. Huntington has been appointed general agent, Passenger Department, and F. T. Goodman has been appointed general agent, Freight Department, there.

Central Vermont Ry.—A. S. Wright, formerly locomotive foreman G.T.R., London,

YOU WILL SAVE MONEY BY INSTALLING

The Pintsch Suction Gas Plant in your factory.

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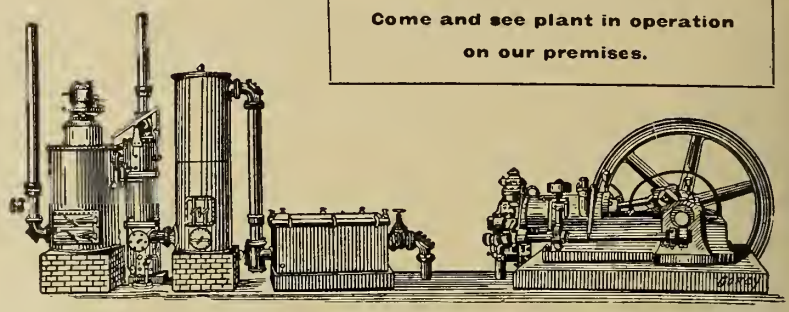

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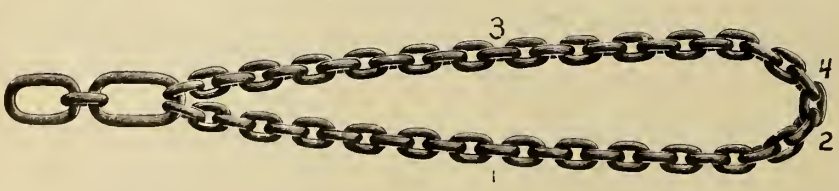

This Chain, plying to and fro on this Sprocket, lasts from four to six times as long as if winding round a post. Hence economy and safety. This Chain also is held by the Sprocket in four places all the time, instead of only by one end, as on a post or drum. Hence safety again. When this Chain gets worn and breaks, a new Chain instantly replaces it automatically. Hence greater safety. The Sterling Safety Brake is the safest, most economical and most powerful of hand brakes.

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Ont., and latterly in charge of water service on the Midland Division, has been appointed Locomotive Foreman, C.V. Ry., St. Albans, Vt.

Delaware, Laekawanna and Western Rd.—W. E. Dowle, heretofore Divisional Freight Agent, Buffalo, N.Y., has been appointed Assistant General Freight Agent, a new position, with office at Buffalo, N.Y.

Erie Rd.—J. R. Cathcart, heretofore city passenger agent at Niagara Falls, N.Y., has been appointed City Passenger Agent at Buffalo, N.Y., succeeding R. F. Schornstein, resigned.

J. B. Dolan has been appointed city passenger agent at Niagara Falls, N.Y., succeeding J. R. Cathcart, promoted.

Grand Trunk Pacific Ry.—The medical work of the Lake Superior branch is under the immediate control of the contractors, Foley Bros., Larson & Co., consequently no appointments of medical officers have been made on behalf of the company on that part of the line.

Grand Trunk Ry.—P. Butler, heretofore travelling passenger agent Canada Atlantic Ry., has been appointed G.T.R. city ticket and passenger agent at Ottawa, succeeding S. Ebbs, resigned.

G. R. Layher, heretofore agent Wabash Rd. at Louisiana St., Buffalo, N.Y., has been appointed agent for the G.T.R. at Black Rock, N.Y., succeeding J. J. Beck, appointed Superintendent Union Station, Toronto.

The following agents have been appointed: Beloeil, Que., F. Wood; Suspension Bridge, N.Y., E. O. Foster; Moose Creek, Ont., O. Parent; Sprucedale, Ont., D. F. Milloy. Outside ticket agent: Parry Sound, Ont., W. J. Fowler.

S. Ennes has been appointed Trainmaster, Districts 25, 27, 28 and 29, suceeeding H. W. Matthews, assigned to other duties. Office, Durand, Mich.

Great Northern Ry. of Canada.—F. Nicholls has been elected First Vice-President, succeeding Col. McNaught.

Halifax and South-Western Ry.—P. Mooney has been appointed District Freight and Passenger Agent. Office, Halifax, N.S.

The International Mereantile Marine Co. announces with great regret, on account of his long and valued services, the resignation of J. A. Wright, Manager for the U.S. and Canada of the Passenger Department of the company's lines. Mr. Wright resigned to accept a partnership in the firm of Huhn, Edey & Company, bankers and brokers, New York City. A few days later he was taken seriously ill with pneumonia, but at latest reports was recovering.

Lake Ontario and Bay of Quinte Steamboat Co.—It is understood that consequent upon the death of C. F. Gildersleeve, the offices of President and General Manager will be divided, and that H. H. Gildersleeve, Manager Northern Navigation Co., Collingwood, Ont., will become President, and E. E. Horsey, the present Traffic Manager, will become General Manager.

Lake Shore and Michigan Southern Rd.—D. C. Moon, heretofore General Superintendent, has been appointed Assistant General Manager, succeeding E. A. Handy, promoted. Office, Cleveland, Ohio.

H. A. Worcester, heretofore General Superintendent Michigan Central Rd., Detroit, Mich., has been appointed General Superintendent L. S. and M. S. Rd., succeeding D. C. Moon, promoted. Office, Cleveland, Ohio.

C. S. Blackman, formerly General Eastern Agent, Big Four Route, Buffalo, N.Y., has been appointed Travelling Passenger Agent there for the L. S. and M. S. Rd.

M. J. McCarthy, heretofore Master Mechanic, Michigan Central Rd., Canada Division St. Thomas, Ont., has been appointed Master Mechanic, L. S. and M. S. Rd., at Elkhart, Ind.

Michigan Central Rd.—H. C. Nutt, heretofore General Superintendent Chicago, Burlington and Quincy Rd., St. Louis, Mo., has been appointed General Superintendent M. C. Rd., succeeding H. A. Worcester, appointed General Superintendent Lake Shore and Michigan Southern Rd.

D. Meadows has been appointed Assistant Master Mechanic, Canada Division. Office St. Thomas, Ont.

Minneapolis, St. Paul and Sault Ste. Marie Ry.—H. M. Lewis has been appointed Assistant General Passenger Agent, succeeding W. S. Thorn, deceased. Office, St. Paul, Minn.

Niagara, St. Catharines and Toronto Ry.—Niagara, St. Catharines and Toronto Navigation Co.—E. H. Pepper has been appointed General Agent; freight and passenger department, with headquarters at Toronto, vice H. G. Luke.

Kingston and Pembroke Ry.—A. McNaughten, heretofore Auditor, has been appointed Secretary-Treasurer, succeeding J. Whitebread, resigned.

E. H. Welch has been appointed Auditor, succeeding A. McNaughten, promoted.

Pere Marquette Rd.—J. F. Dimling, heretofore Division Engineer, Grand Rapids, Mich., has been appointed Chief Engineer. Office, Detroit, Mich.

J. Tuthill, heretofore Bridge Engineer, has been appointed Engineer of Bridges and Buildings. Office, Detroit, Mich.

The office of O. C. LeSuer, Division Engineer, Buffalo Division, St. Thomas, Ont., has been removed to Detroit, Mich., and his jurisdiction extended over what is known as the Detroit District, composing the Buffalo Division of the P.M. His title will remain the same, but he will report to the Superintendent instead of to the Chief Engineer as in the past.

The office of Master Car Builder of the Cincinnati, Hamilton and Dayton and Pere Marquette Rd. has been abolished. It is reported that W. D. Lowry, who held that position, will remain with the C., H. and D. Rd.

Wabash Rd.—The handling of the U.S. mail on the Wabash Rd. will be conducted under the direction of D. O. Ives, General Traffic Manager, St. Louis, Mo., instead of as heretofore.

E. K. Woodward, Engineer of Maintenance at Peru, Ind., has been appointed Principal Assistant Engineer, succeeding H. M. Cryder, resigned. Office, St. Louis, Mo.

J. N. Hoffner has been appointed District Passenger Agent at Buffalo, N.Y., reporting to R. N. Collyer.

White Pass and Yukon Route.—J. H. Rogers, heretofore General Agent at Dawson, Yukon, has been appointed Traffic Manager, with offices at Vancouver, B.C., and Skagway, Alaska.

H H. Phillips has been appointed Purchasing Agent, vice J. W. Young, resigned.

F. B. Wurzbacher has been appointed General Agent at Skagway, Alaska, with the same jurisdiction over all traffic matters heretofore exercised by R. D. Pinneo.

M. J. B. White, General Freight and Passenger Agent, having resigned, the office has been abolished. R. D. Pinneo, heretofore Assistant General Passenger and Freight Agent, Skagway, Alaska, has been appointed Freight and Passenger Agent. Office at Vancouver, B.C.

C. L. Coon, city passenger and ticket agent, G.T.R., Buffalo, N.Y., died there Feb. 25, aged 38, after a brief illness, and was buried at Watertown, N.Y. He was appointed C. P. & T. A. at Buffalo on the promotion of J. D. McDonald to the District Passenger Agency at Toronto, May, 1902.

Railway Finance, Meetings, etc.

Bruce Mines and Algoma Ry.—The Exchequer Court has made an order appointing a Receiver for this line, which extends from the shore of Lake Huron, to Rock Lake, Ont., 17 miles, and has charter powers to extend to the C.P.R. transcontinental line.

Canadian Pacific Ry.—A resolution has been passed by the directors authorizing the increase of the capital stock from $110,000,000 to $150,000,000, and a meeting of the shareholders has been called to be held in Montreal March 19, for the purpose of sanctioning the same, and determining the amount or amounts and the time or times at which the new stock is to be issued; and the purposes to which it will be applied.

Kingston and Pembroke Ry.—Following are the officers and directors for the current year:—President, W. D. Matthews, Toronto; Vice-President and General Manager, W. R. Baker, Montreal; other directors: W. Harty, M.P., R. V. Rogers, B. Crawford, Kingston, Ont.; A. R. Creelman, K.C., Jas. Oborne, Montreal; H. P. Timmerman, W. B. Hart, Toronto; Secretary-Treasurer, A. MacNaughton.

New Brunswick Coal and Ry. Co.—The Treasurer of New Brunswick in his budget speech, Feb. 19, stated that the report of the Commissioners in charge of the operations of the railway showed that from July 1, 1905, to Jan. 31 of the current year, the gross earnings of the line had been $24,605.71, the operating expenses $22,416.58, leaving net earnings of $2,189. There was in the hands of the Receiver-General a balance of $52,075 of the sum authorized to be devoted to the purposes of the line, and the Commissioners had a balance of $3,629.79 in hand. No provision, said the Treasurer, had been made for the remuneration of the Commissioners.

Quebec Central Ry.—Gross earnings for Jan., $61,134.51; net earnings, $18,225.58, against $46,441.18 gross and $7,322.68 net for Jan., 1905.

Quebec Southern and South Shore Ry.—Senator F. L. Beique has completed the payments required for the purchase of these lines at the recent sale by order of the Court of Exchequer. The purchase was made on behalf of the Delaware and Hudson Rd., the price being $1,061,000. The question of the sale has been taken to the courts by the Rutland Road and others who allege that other offers were more advantageous to the creditors than the one accepted, and will be argued on March 1.

Temiscouata Ry.—Traffic receipts for Jan., $10,898.18 against $8,707.14 for Jan., 1905.

Toronto, Hamilton and Buffalo Ry.—Earnings for Jan., $66,087.26 against $53,180.48 for Jan., 1905.

Canadian Freight Classification.

By supplement 6 to Canadian Freight Classification 12, submitted for the approval of the Board of Railway Commissioners, it is proposed to make the following changes in Classification 12 and supplements 4 and 5 thereto, and the approval of the Board to such changes has been requested, viz.:—

Present.	L.C.L.	C. L.	*Proposed*	L.C.L.	C.L.
Asbestos: Page 15, also page 4, supplement No. 4.					
Asbestos Pipe, or Pipe Covering	2	4	Asbestos Boiler or Pipe Covering, in bags, crates O. R. B. or in boxes	2	4
Hemp: Page 54.					
Hemp in boxes, O.R. of fire and water	2	5	Hemp: In uncompressed bales or bundles	1	5
Hemp in bales O.R. of fire and water	3	.5	In compressed bales or in boxes	3	5
Hemp C.L. minimum 20,000 lbs			C.L. minimum weight 20,000 lbs.		

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Advertising Rates furnished on application.

ADVERTISING COPY should reach the office by the 10th of the month preceding the date of publication if proof is required, or by the 15th if proof not wanted.

TORONTO, CANADA, MARCH, 1906.

Canadian Association of Masters and Mates.

GRAND MASTER, Capt. J. McGiffin, Toronto, Ont.; GRAND SECRETARY-TREASURER, Capt. H. O. Jackson, 376 Huron St., Toronto.

Canadian Car Service Bureau.

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PRESIDENT, W. R. MacInnes, Montreal; SEC.-TREAS., T. Marshall, Toronto.

QUARTERLY MEETINGS.—The Thursday after the first Monday in Jan., April, July and Oct.

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MEETINGS at Windsor Hotel, Montreal, 1st Tuesday of each month, 8 p.m.. except June, July and August.

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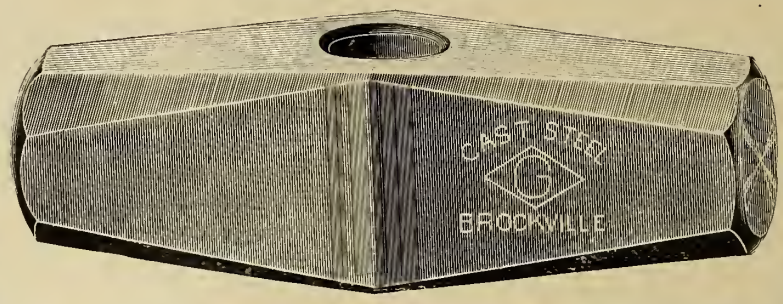

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ELECTRIC RAILWAYS.

Toronto Railway Co.'s Report.

Following are extracts from the report for the year 1905 presented at the 14th annual meeting in Toronto, Feb. 7:—The gross earnings were $2,747,324.58, showing an increase of $302,790.34, or 12.38%, a continuation of the healthy increases made during several years past. The distribution of gross earnings was as follows:—Operating expenses, $1,560,437.42; interest charges on bonds, $171,599.80; payments to city on account of percentages of earnings due under the franchise agreement, $292,706.72; payments to city on account of pavement charges, $79,996.94; four quarterly dividends of 1¼%, each, aggregating $350,000.00; leaving a surplus of $292,583.70. Of this $50,000.00 has been transferred to contingent account, and the balance, $242,583.70, has been carried to the credit of profit and loss. This account now shows accumulated profits amounting to $1,714,798.77, all of which has been applied in capital expenditure. The capital expenditure during the year amounted to $507,493.79, the principal items of which were the completion and equipment of sub-power stations on Yonge St., and Front and Frederick streets, the laying of underground cables, the constructinon of double-truck convertible cars, and the equipment of 100 cars with air brakes. The renewal of the steam plant which was commenced three years ago has been completed, and other repairs and improvements have been effected. During the year there was paid to the City Council for percentages, pavement charges, and taxes, $405,638.89.

Passengers carried, 67,881,688; transfers, 23,625,752, against 60,127,460 and 20,480,270 for 1904. Percentage of operating expenses 56.08% against 58.2 % in 1904.

The annual statement of the Toronto and York Radial Ry., the control of which was obtained in 1904, showed a surplus of $20,248.01 after paying operating expenses and meeting interest on bond issue. Extensions on the Mimico Division from Long Branch to Port Credit, 3.6 miles, and on the Scarboro Division from the Halfway House to Scarboro Post Office, 3.3 miles, were completed and put into operation Dec. 24. The extension of the Metropolitan Division from Newmarket to Jackson's Point, 24.4 miles, is under construction. A private right-of-way has been secured and fenced in, grading has been completed, and all culverts and bridges built (with the exception of the trestle work over the G.T.R. at Newmarket), and rails have been laid the full distance.

ASSETS

Road and equipment, real estate and buildings, including pavements, etc.		$12,686,140.15
Stores in hand		244,030.10
Accounts receivable		34,318.69
Cash in bank	$104,852.58	
Cash in hand	19,403.86	
		124,256.44
		$13,088,745.38

LIABILITIES

Capital stock		$7,000,000.00
Bonds—4½% sterling	$2,030,373.33	
4½% Currency	983,000.00	
6% Debentures	600,000.00	
		3,613,373.33
Mortgages		70,300.00
Accounts and wages payable		306,760.38
Accrued interest on bonds		64,219,65
Unredeemed tickets		28,269.18
Dividend payable Jan. 2, 1906		87,500.00
Contingent account		203,524.07
Profit and loss Dec. 31, 1904	$1,472,215.07	
Balance surplus Dec. 31, 1905	242,583.70	
		1,714,798.77
		$13,088,745.38

Following are the officers and directors for the current year:—President, W. Mackenzie; Vice-President, F. Nicholls; other directors: Hon. G. A. Cox, Sir H. M. Pellatt, W. D. Matthews, J. Gunn, Toronto; R. Forget, Montreal.

Projects, Construction and Betterments.

Brandon, Man.—At the inaugural meeting of the City Council, recently held, the Mayor stated that it had been announced that an application would be made for a street railway franchise; if such were to be granted the community must reap the full benefit and its interests be guarded. Personally he was in favor of the city owning its own lines. (Nov., 1905, pg. 541.)

Edmonton St. Ry.—The City Council of Edmonton, Alta., is of opinion that the franchise granted to R. P. Inglis, Montreal, for the construction of an electric railway, two miles of which were to be in operation by Sept., 1905, had been forfeited. The company formed by Mr. Inglis claims that it still holds the charter, and says it is ready to proceed with construction, having purchased plant, etc. The matter may probably reach the courts. The city commissioners are at present figuring on the construction of three miles of line during the current year, and will present estimates next meeting of the council. (Aug., 1905, pg. 369.)

Hamilton, Caledonia and Lake Erie Ry.—W. Anderson, one of the promoters of this projected electric railway, stated Feb. 12, that construction would be commenced at an early date. The company, which has power to bore for and distribute natural gas, has now secured the right to lay mains for conveying natural gas alongside its railway. A contract has been made to supply the Hamilton Steel and Iron Co. with 1,000 ft. per day, and Mr. Anderson claims there will now be no difficulty in getting the project financed. (Oct., 1903, pg. 341.)

Hamilton Radial Ry.—The bridge at Oakville, Ont., has been completed and track laid over it. There are only about seven miles of track to be completed to make the connection with the Toronto and York Radial Ry. Co.'s Mimico line which is now running into Port Credit. (Jan., pg. 35.)

Hamilton Terminal Ry. Co.—The Ontario Legislature will be asked at the current session for an act incorporating a company with this title with power to construct a railway in Hamilton and the county of Wentworth, Ont. Staunton and O'Heir, Hamilton, Ont., are solicitors for the applicants.

A special meeting of the Hamilton City Council was held, Feb. 6, in connection with the application of the Hamilton Cataract Light, Power and Traction Co., with reference to the construction of the union terminal station, which it is proposed to erect at a cost of $250,000. The company desires to construct a line on Catharine St., from Wilson St. to the proposed station at the corner of King and Catharine streeets; to use Main St. for outgoing radial railway cars, and the right to connect the street railway and the Hamilton, Grimsby and Beamsville Ry. at the corner of Main and James streets.

Kenora, Ont.—The town council has been asked by the Board of Trade to secure surveys and estimates of the cost of an electric railway between Kenora and Keewatin, Ont., about three miles.

Montreal Street Ry.—A large tract of land has been purchased in the east end upon which it is intended to erect a power house at a cost of about $1,000,000, of a larger size and capacity than the present one on William St. (Dec., 1905, pg. 593.)

The South-Western Traction Co. has had its cars running from London, Ont., to the point where its line will pass under the G.T.R. (Wabash) main line, about a mile north of St. Thomas. At this point a subway is being constructed, and it is expected that this will be completed in a few weeks. The line is graded through from London to Port Stanley, and steel has been laid to a couple of miles south of St. Thomas, with the exception of the break at the subway. The two large steel bridges over the Thames at London and over Kettle Creek at St. Thomas are being proceeded with, the latter, we were advised, Feb. 13, would be completed within a few days. The bridges are approached in each instance by 400 to 500 ft. of trestlework which, with the steel-work, are of standard steam railway design. H. W. Middlemist, civil engineer, Toronto, was engaged in laying out the work. During the current season it is intended to finish the line into Port Stanley, and to proceed with the lines from London to Delaware, and from London to Ingersoll. (Feb., pg. 89.)

Toronto Ry.—An order has been placed in the U. S. for 5,000 tons of 90-lb. girder rails to re-lay a number of the main lines in the city. It is proposed to re-lay altogether about 42 miles of track at present. (Jan., pg. 37.)

Windsor, Essex and Lake Shore Rapid Ry.—Grading is reported to have been completed on this line between Windsor and Kingsville, Ont., and tracklaying is said to be going on. (Jan., pg. 37.)

Winnipeg, Selkirk and Lake Winnipeg Ry.—The application for an act, which was made at the opening of the current session of the Manitoba Legislature, authorizing the company to acquire an entrance into Winnipeg, has been withdrawn. The reason for the withdrawal was the decision of the directors to transfer the line and franchise to the Winnipeg Street Ry. The shareholders' meeting to approve of this step was held Feb. 27. (Feb., pg. 89.)

Electric Ry. Finance, Meetings, Etc.

British Columbia Electric Ry.—Gross earnings for Dec., $106,472, against $89,447 for Dec., 1904. Working expenses, $54,402; renewal funds, $8,500; approximate income from investments, $7,967; net income, $51,537, against $42,143 working expenses; $6,695 renewal funds; and $43,359 net income for Dec., 1904. Aggregate gross earnings for six months ended Dec. 31, $597,573; net income, $278,089, against $463,921 gross, and $188,922 net for same period, 1904.

Halifax Electric Tramway.—Car earnings for Jan., $11,732.96, against $10,255.82 for Jan., 1905.

Montreal St. Ry.—Passenger earnings for Jan., $236,311.83; total earnings, $238,230.15, against $201,096.12 and $203,235.40 respectively for Jan., 1905. Operating expenses, $158,829.92, fixed charges, $37,090.49; surplus, $42,309.74, against $151,675.88 operating expenses; $19,035.25 fixed charges, and $32,524.27 surplus for Jan., 1905. Total earnings for four months ended Jan. 31, $957,599.49; net earnings, $341,465.77; surplus, $238,627.92, against $841,349.63 total earnings, $287,367.21 net earnings, and $212,039.44 surplus for same period 1904-05. Interest on Montreal Park and Island Ry. Co.'s bonds owned by the company not included.

It was reported, Feb. 22, that the company had purchased the line and franchise of the Montreal Terminal Ry., paying the sum of $50,000 therefor, but we were officially informed Feb. 23, that there was no truth in the statement. The M. T. Co. owns a line from Craig St., near the city hall, to the eastern boundary of the city, and other lines outside the city, a total of 18.34 miles. It is believed negotiations for the purchase are in progress.

Niagara Gorge Rd.—The annual meeting was not held on the regular date owing to the continued absence of the President in

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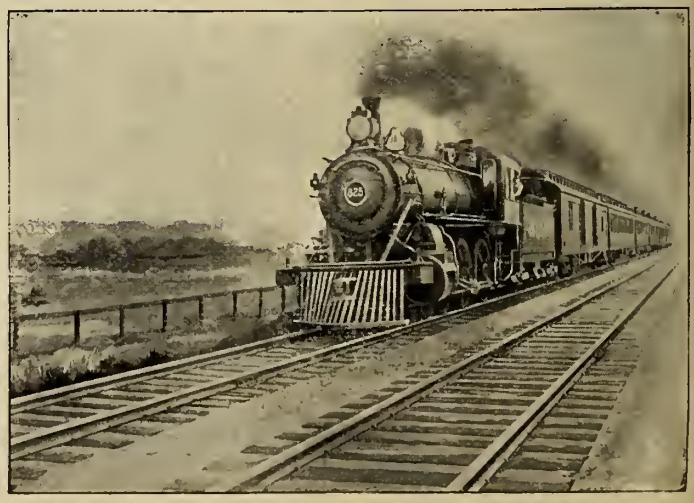

"Pacific Express," Montreal for Vancouver Daily.

the south, and on Feb. 16 we were advised that no date had been fixed for the meeting.

Niagara, St. Catharines and Toronto Ry.—Gross earnings for Jan., $12,095.95, against $11,265.03 for Jan., 1905. Surplus for Jan., $3,137.39, against $2,604.32 for Jan., 1905.

St. Thomas Street Ry.—The St. Thomas City Council will apply next session of the Ontario Legislature for an act authorizing the issue of debentures not exceeding $30,000 for paying off floating debts incurred for, among other things, the purchase of a storage battery, and an extension of the street railway.

Toronto Ry.—The Toronto City Council will apply at the current session of the Ontario Legislature for an act for a number of purposes, including the following: To compel the Toronto Ry. to furnish and maintain suitable sanitary conveniences for the car employes; to enable the city to take over or expropriate the property, rights and franchises of the Toronto Ry., upon the terms and conditions which the agreement with the company provides for the city's taking over the railway at the termination of the company's franchise; the said expropriation not to be made until the same has been approved of by a vote of the ratepayers qualified to vote on money by-laws; to interpret the agreement between the Toronto Ry. and the city so as to make it clear that the city has the right to lay down new lines and operate cars thereon in case the company refuses or neglects to do so.

Car earnings for Jan., $236,129.03, against $196,969.98 for Jan., 1905.

Winnipeg Electric Ry.—Following are the officers and directors for the current year:—President, W. Mackenzie, Toronto; Vice-President, W. Whyte, Winnipeg; Secretary, F. M. Morse, Winnipeg; other directors, Sir Wm. C. Van Horne, Montreal; D. D. Mann, D. B. Hanna, Toronto; H. Sutherland, A. M. Nanton, R. J. Mackenzie, Winnipeg. The annual report has not yet been issued.

An agreement has been signed for the purchase of the line, property and franchise of the Winnipeg, Selkirk and Lake Winnipeg Ry., and the contract came up for ratification at a meeting of shareholders of the latter company, held in Winnipeg, Feb. 27.

Woodstock, Thames Valley and Ingersoll Electric Ry.—The annual meeting was held at Woodstock, Feb. 6. Following are the officers and directors for the current year:—President and Treasurer, J. G. Wallace; Vice-President, W. J. Ickes; other directors: D. W. Karn, E. W. Nesbitt,; Secretary, H. H. Powell; General Manager, Dr. S. R. Ickes; Auditor, M. J. Brophy.

Electric Railway Notes.

The Montreal Street Ry. is having built by the Canada Car Co., Montreal, 10 closed cars, 51 ft. 10 in. long, over bumper castings.

A. T. Goward, local manager at Victoria for the B.C. Electric Ry., is expected to return early in March from a month's holiday trip to California.

The Peterborough Radial Ry. Co. passed a by-law at its annual meeting recently, directing that its affairs shall be managed and controlled by a board of seven directors.

The St. John, N.B., Ry. Co. has created the office of General Manager, and has appointed W. Z. Earle, heretofore Secretary-Treasurer, thereto. Mr. Earle, as well as previous occupants of the office of Secretary-Treasurer, performed the duties of Manager. The position of Secretary-Treasurer, as rearranged, has been filled by the appointment of H. M. Hopper.

The car barns of the International Ry. near the Whirlpool Rapids, on the Canadian side of the Niagara River, were destroyed by fire, Feb. 12. A snow-plough and 27 cars were destroyed. Fourteen of the cars destroyed were open bench cars used for the belt line service in summer. Machinery supplies, etc., were also burned. The total loss is estimated at $75,000. A new car house, shop, etc., will be built in Canada, but the exact location had not been fixed Feb. 22.

The B.C. Electric Ry. is building at its New Westminster shops a combination work and line car with snow-plough attachment and a number of dump cars for the North Vancouver line construction; four double-ended semi-convertible cars for the Vancouver-Kitsilanto line; four double-truck cars for the Vancouver city line; four single-truck and two double-truck cars for the Victoria lines; two interurban cars for the New Westminster-Vancouver line, and a double-truck freight car. It is also rebuilding passenger cars nos. 3 and 39.

Jas. Milne, who has been appointed General Superintendent British Columbia Electric Ry., was born at Woodside, Aberdeen, Scotland, Jan. 29, 1865, and after a technical course at Gordon College, Aberdeen, served

JAMES MILNE, M.E. & E.E.
General Superintendent B.C. Electric Ry. Co.

a five years' apprenticeship to mechanical engineering. He came to Canada in 1887, and after some time spent in the employ of private firms, was appointed General Superintendent of the Incandescent Electric Light Co., Toronto, subsequently entering the employ of private firms where he remained until his present appointment. For two years he was a lecturer on steam and steam engines, applied mechanics and electricity at the Toronto Technical School in its early days.

The Toronto Ry. has at present a six-inch, T-rail in use on its Dupont St. line which, we are advised, has so far proved satisfactory, and C. H. Rust, City Engineer, has recommended its further adoption. It is proposed to use the T-rail on Dovercourt Rd. during the coming summer, and if it is found satisfactory there, its further use will be urged. The advantage of the T-rail is that there is no groove to become clogged with ice and dirt. The early style of T-rail, which was used on some street railway tracks, was not satisfactory as it was not deep enough for paved streets, but a rail 7 inches in depth is now manufactured, and a special paving block is made to fit alongside the rail. Such rails have been laid in Milwaukee, St. Paul, Minneapolis and Duluth, Minn., with very good results.

Grain Elevator Notes.

The Grand Valley Elevator Co.'s elevator at Grand Valley, Ont., is offered for sale.

The C.P.R. was reported to be despatching daily during Feb. three trains of 25 cars each loaded with grain from the elevators at Fort William, Ont., for St. John, N.B.

The old Northern Elevator on the waterfront at Toronto has been sold, and the building will be diverted to other purposes. It has not been used as an elevator for some years.

A project is under consideration at Berlin, Ont., for the construction of a large grain elevator and cold storage warehouse there. The proposal is to erect the buildings on G.T.R. property near the station.

The Tupperville Milling and Elevator Co., Tupperville, Ont., has decided to go into liquidation, and a resolution was adopted Feb. 8, authorizing the directors to wind up its affairs. J. W. Simpson is Secretary of the company.

Application will be made at the current session of the Ontario Legislature for an act incorporating the Twin City Chamber of Commerce, for the purpose of establishing a grain and produce exchange at Port Arthur or Fort William, Ont.

The Red Deer Mill and Elevator Co., Blackfolds, Alta., proposes constructing a line of 35,000 bush. elevators along the main line of the Canadian Northern Ry., and also on the C.P.R. branch lines running north and south from Calgary, Alta.

The 1,000,000 bush. elevator constructed at Montreal is expected to be ready for receiving grain on the opening of navigation. It will be operated by the Montreal Warehousing Co., a G.T.R. corporation. The position of the structure is such that it will be enabled to load or unload steamers in the canal basin and in the river, while a belt conveyer gallery has been erected for loading the trans-Atlantic steamers.

The Northern Navigation Co. has leased the grain elevator at Point Edward, Ont., and will operate it in connection with its steamers as well as for general business. In making contracts for outside steamers it will be arranged that the N.N. Co.'s steamers will have first call on the elevator, owing to the fact that they are being run on schedule time. Is is not intended that there will be any advance in the rates for running the elevator, it being intended to operate it on the same basis as other houses on Georgian Bay.

The Inspector of Grain at Port Arthur and Fort William prepared statistics showing the distribution of the grain crop of 1905. The totals show that 40,982,787 bush. of wheat were shipped eastward, of which 29,763,905 were shipped almost exclusively to Canadian ports in Canadian bottoms, and 11,212,882 in U.S. bottoms to U.S. ports, against 27,091,092, and 2,822,302, respectively, in 1904; and 28,160,976 and 6,532,049 respectively for 1903. The distribution of the wheat forwarded from Port Arthur and Fort William, in Canadian vessels, was reported to be as follows:—

	1905 bush.	1904 bush.	1903 bush.
Depot Harbor	9,067,510	7,109,528	4,193,463
Montreal	6,623,009	4,592,793	4,188,067
Owen Sound	2,535,337	1,824,963	2,009,066
Midland	2,417,468	2,618,051	5,987,248
Point Edward	2,251,069	1,568,580	1,324,981
Goderich	2,010,634	3,564,078	3,188,483
Pt. Huron, Mich.	1,757,976	615,880	.....
Kingston	1,003,771	624,537	1,627,699
Meaford	596,913	1,615,334	2,687,929
Collingwood	489,788	688,813	629,867
Buffalo, N.Y.	454,962	1 916,735	2,031,649
Erie, N.Y.	212,183	.....	292,524
Thorold	171,072	.....	.....
Port Colborne	135,213	141,800	.....
Detroit, Mich.	37,000	.....	.....
Sault Ste. Marie, (for orders)	.....	210,000	.....
Totals	29,763,905	27,091,092	28,160,976

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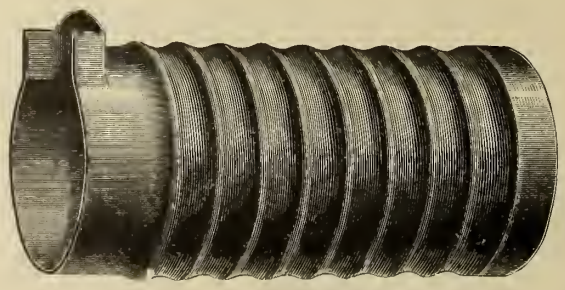

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MARINE DEPARTMENT

LIST OF STEAM VESSELS REGISTERED IN CANADA FROM JAN. 15, TO FEB. 15.

Name.	No.	Where and When Built.	Engines, etc.	Length	B'dth.	Depth.	Gross tons.	Reg. tons.	Home Port.	Owners.
				ft.	ft.	ft.				
Alice	116,610	Three Rivers, Que., 1902	Screw 2 N.H.P.	41.0	10.9	3.9	15	11	Montreal	T. Lemyre, Grandes Piles, Que.
Canada	117,146	Kinghorn, Gt. Britain, 1892	" 156 "	185.5	27.2	19.5	715	486	Halifax, N.S.	W. W. Lewis, Sydney, N.S.
George L	121,810	Shelburne, N.S., 1906	" 13½ "	67.0	17.6	7.4	61	42	Yarmouth, N. S.	C. F. Lewis, Digby, N.S.
Grebe	116,382	Sarnia, Ont., 1904	" 3 "	38.0	9.0	4.0	9	6	Port Arthur, Ont.	J. Scagel, Port Arthur, Ont.
Majestic	121,771	Bad Throat, Man., 1904	" 4 "	78.0	16.0	7.0	64	44	Winnipeg, Man.	Jas. Stewart, Winnipeg, Man.
Marvyl	121,772	The Landing, Man., 1905	" 13 "	120.0	26.0	8.0	225	153	Winnipeg, Man.	Manitoba Gypsum Co. (Ltd.), Winnipeg.
Olive R	117,050	Shelburne, N.S., 1905	" — "	35.0	12.5	6.6	14	12	Barrington, N.S.	H. Swim, Lockport, N.S.
Otter	121,911	Kenora, Ont., 1905	" 1 "	40.0	10.0	4.0	16	11	Kenora, Ont.	Dominion Fish Co. (Ltd.), Selkirk, Man.
Viking	121,721		" 1 "	28.7	9.0	4.0	8	6	Vancouver, B.C.	A. E. Brown, Vancouver, B.C.

LIST OF SAILING VESSELS AND BARGES REGISTERED IN CANADA FROM JAN. 15, TO FEB. 15

Name.	No.	Where and When Built.	Rig.	Length	B'dth.	Depth.	Gross tons.	Reg. tons.	Home Port.	Owners.
A. M. 5	121,719	Vancouver, B.C., 1902	Scow	78.3	30.3	7.5	105	105	Vancouver, B.C.	W. C. Ditmars, Vancouver, B.C.
C. W. 3	121,720	Vancouver, B.C., 1905	"	76.0	26.0	7.8	86	86	Vancouver, B.C.	Champion & White, Vancouver, B.C.
Eva M	121,901	Clark's Harbor, N.S., 1905	Sloop	30.0	11.9	6.0	11	11	Barrington, N.S.	A. Swim, Clark's Harbor, N.S.
Francis D. Cook	116,308	Murray Harbor, P.E.I., 1905	Schr.	55.4	19.3	7.6	47	47	Charlottetown, PEI	R. Cahoon, Murray Harbor, P.E.I.
McB. No. 1	121,718	Vancouver, B.C., 1905	Scow	74.0	26.0	6.3	73	73	Vancouver, B.C.	T. G. McBride, Vancouver, B.C.

Richelieu and Ontario Navigation Co.

The report for the year presented at the annual meeting in Montreal, Feb. 19, showed gross earnings of $1,217,373.61, an increase of $217,504.10 over 1904, and net profits, after providing for fixed charges, interest, etc., of $239,294.55, being an increase over the previous year of $144,981.62. The operating expenses were 78.86% of the gross earnings as against 88.64% for the year 1904. The bond issue originally amounting to $571,833.33 now stands at $351,373.35. During the year the company redeemed $27,253.33 of the bonds, and has in its treasury $1,946.66 of bonds redeemable Mar. 1, 1906. Since the last annual report, the steamer Montreal has been completed, and was placed in commission May 24, 1905. Her operation warrants the congratulations previously extended. The steamer Belleville has been lengthened with satisfactory results. The heavy traffic of last season and the increased movement of tourists and commercial business generally, necessitate steamers of greater capacity. In view of this, the directors placed an order for a new steamer for the St. Lawrence River rapids, and are also making inquiries looking towards the building of a new steamer equal to or larger than the Montreal for the Montreal-Quebec route. The hotels, shops, wharves, and shore properties have been thoroughly maintained during the year, and quite a number of improvements and betterments have been made on the same. The marine railway dock, referred to in the last report, is still receiving the attention of the directors, who will continue to press upon the Government the urgency of this very necessary public work. Application has been made to Parliament to amend the acts of incorporation by giving further and additional powers, and for authority to issue bonds.

INCOME ACCOUNT.

Carried to surplus, Dec. 31, 1905	$254,660.05
Surplus, Dec. 31, 1904	15,365.50
Net profit for 1905	239,294.55
Total	$254,660.05

ASSETS.

Steamers, real estate, buildings, and wharves, etc	$3,837,186.64
Coal, stores, provisions, etc	87,589.02
Accounts receivable	30,697.79
Total	$3,955,423.45

LIABILITIES.

Capital stock		$3,132,000.00
Bonds 5% sterling	$571,833.33	
Less cancelled $220,459.98		
On hand 1,946.66		
	222,406.64	
		349,426.69
Accounts payable		85,617.65
Unclaimed dividends		234.00
Accrued interest on bonds		5,823.77
Bank loans		127,661.29
Surplus		254,660.05
		$3,955,423.45

President R. Forget in presenting the report and financial statement stated that the bank loan of $127,000 represented work in progress at the works at Sorel, and that it would be wiped out by June. The expenses in connection with the accident to the Canada had been wiped off the books. Although a promise could not be made, he saw no reason why the payment of dividends should not be resumed in the summer. The idea of the new bonds was to have power to issue $1,000,000, using a portion to pay for the vessels now building and for those contemplated.

The report having been adopted the retiring directors were re-elected, and a vote of thanks was accorded them for their services on motion of Barlow Cumberland. The directors elected were:—R. Forget, M.P., W. Wainwright, G. Caverhill, W. Hanson, Hon. J. L. Forget, C. O. Paradis, H. M. Molson, Col. F. C. Henshaw, Sir H. M. Pellatt, J. K. Osborne, Hon. E. B. Garneau.

The Canadian Lake and Ocean Navigation Co.'s turret deck type str. Scottish Hero, heretofore engaged in the coal trade between Sydney, N.S., and Montreal, will be brought to the Upper Lakes in the spring. Upon reaching Quebec she will be cut in two, and towed through the canals in sections, being put together again on reaching Lake Erie or Lake Huron. She will be engaged in the bulk freight trade on the Upper Lakes.

Shipping Federation of Canada.

The report presented at the annual meeting of the Shipping Federation of Canada, in Montreal, Feb. 14, showed that a large number of important matters had been dealt with during the year. H. A. Allan, the President, in his report dealt with the chief events of the year, among the matters upon which he touched being the St. Lawrence channel and the work now in progress in Montreal harbor. In this connection he said it was the duty of the Government to carry on energetically and systematically the deepening of the channel and not to stop at 30 ft., but continue until such a depth and width is provided as would allow the largest vessels afloat to use the port and wharves. Another important matter to which he alluded was the shed accommodation and the facilities for moving cargo. At Montreal there never had been any shore appliances available for the rapid handling of cargoes, except grain elevators. The sooner such were provided, and the heavy charges for handling freight were reduced, the better it would be for the port. At Hamburg there were over 500 cranes available for the rapid shifting of freight. If vessels were to be attracted to Montreal, the facilities that could be obtained elsewhere must be provided. Now that the Montreal pilotage and pilotage below Quebec were under the authority of the Minister of Marine, it was hoped that the long looked for board of management, consisting of a member of the department, a nominee of the Shipping Federation and a nominee of the pilots, would take practical effect and be constituted at an early date for the management of the pilotage services.

The report of the council was a lengthy one, and dealt in detail with the various questions discussed during the year, giving the correspondence that had taken place in regard to them and the results obtained. These included the pilotage above and below Quebec, aids to navigation, pilotage regulations at Halifax, wireless telegraph stations, allotment of berths at Montreal, and the many other matters affecting the shipping interests before Parliament, with

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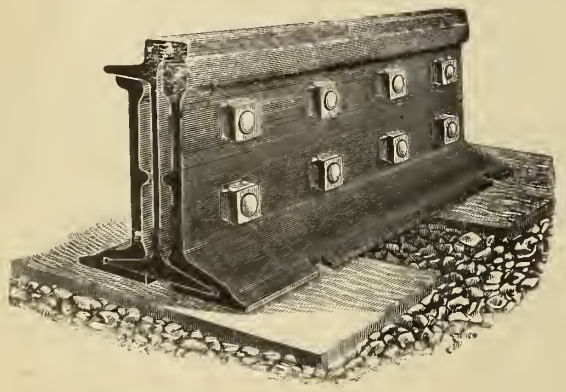

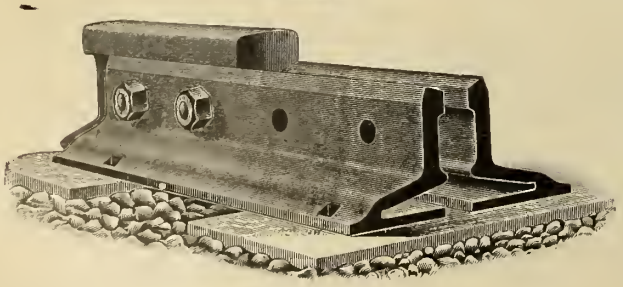

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the local authorities, etc. An appendix contained a large amount of statistical and other information relating to the ocean-going as well as the inland marine interest of Montreal.

The officers and committee for the year are: President, H. A. Allan; Chairman Executive Council, Jas. Thom; Vice-Chairman Executive Council, R. W. Reford; members: D. W. Campbell, C. McLean, F. L. Wanklyn; Treasurer, J. R. Binning; Manager and Secretary, T. Robb.

Lake of Bays Navigation.

The Huntsville, Lake of Bays and Lake Simcoe Navigation Co.'s annual meeting was held in Toronto Feb. 21. The annual reports are not made public, but the Manager advises us that the statements submitted were satisfactory, and showed larger net earnings than in 1904. The officers and directors for the current year are: President, C. O. Shaw, Huntsville; Vice-President, H. Foster Chaffee, Toronto; Manager and Secretary-Treasurer, W. Duperow, Huntsville; other directors: A. A. Mahaffy, Bracebridge; John McKee, and S. H. Jacobs, Huntsville. The board is an entirely new one with the exception of Mr. Duperow. A good deal of the stock, a considerable portion of which was held by the estate of the late G. F. Marsh, the founder of the company, has changed hands lately. The authorized capital is $100,000, of which $58,000 has been subscribed and paid up. The company was incorporated in 1902, and bought the boats previously operated by G. F. Marsh, giving him $25,000 paid-up stock therefor. Since then the company built the Huntsville and Lake of Bays Ry., one mile long. Bonds were issued to cover the cost of the railway and of the additional steamboat now being built, and a chattel mortgage of $25,000 has been given the Toronto General Trusts Corporation to secure the bond issue.

Masters' and Mates' Association.

The annual meeting of the Grand Association of the Canadian Association of Masters and Mates was held in Toronto, Feb. 13 and 14, the delegates present being captains representing the local associations at the points named:—

J. Wilson, Grand Master, Collingwood; J. McGiffin, First Grand Officer, Toronto; W. Ireland, Grand Secretary, Parry Sound; J. Dix, Grand Pilot, Kingston; Jno. Towers, Grand Watchman, St. Catharines; W. J. Madden, Grand Look-out, Penetang; J. W. McCoppen, Auditor, Port Colborne; R. D. Simpson, Owen Sound; B. Burke, Penetang; A. McCaulay, Midland; W. C. Jordan, F. Scott, Collingwood; G. McKay, St. Catharines; H. O. Jackson, T. Sullivan, and J. McMaugh, Toronto. In all eight local associations were represented, viz., Toronto, Collingwood, Parry Sound, Penetang, Midland, Owen Sound, Kingston, St. Catharines.

A report was received from the delegation sent to Ottawa last year to make certain recommendations to the Department of Marine. On account of the death of Mr. Prefontaine, another delegation will be sent to lay before the new Minister a number of matters, including the removal of restrictions on Canadian vessels entering Lake Michigan, improvements of the law regarding the examination of masters and mates, and the appointment of paid examiners. The committee reported that a light had been placed on Welcome Island, Thunder Bay, and suggested that the following aids to navigation should be provided this spring or as soon after as possible:—A gas buoy or light ship, latter preferred, with fog horn on Surprise Shoal, one of the danger spots on Georgian Bay; a gas buoy on Kennedy Shoal, Georgian Bay; a gas buoy on Graham Shoal, off Duck Island, Lake Huron; a light and fog horn on the west end of Michipicoten Island; that the front light on the end of the pier at Port Dalhousie be a red light; should electric light become extinguished by accident the revolving light on the back range should not be replaced by a red light; it is also strongly recommended that a fog horn be placed on the pier at Port Dalhousie. A bell gas buoy to be placed on the Niagara Shoal, Lake Ontario; that the lights on the Eastern Gap at Toronto be improved; that a gas buoy be placed off the False Ducks, Lake Ontario, for deep water boats; that the shoal on the port side of the channel in the River St. Lawrence, below the foot of the Lift Lock, Galops Canal, be removed, said shoal having been formed by mud scows dumping their loads. The committee also favored the deepening of the Welland Canal to a uniform depth of 20 ft. and the construction of a turning basin at St. Catharines.

Notice of motion was given for the next annual meeting to strike out the words "and mates" from the title of the Association. This is the result of the withdrawal from the association of a number of mates, who considered that their interests in the matter of wages had not been looked after by the Association, this being a matter with which the Association has always declined to deal.

The following officers were elected for 1906:—Grand Master, Capt. J. McGiffen, Toronto; Grand First Officer, Capt. Frank Scott, Collingwood; Grand Secretary-Treasurer, Capt. H. O. Jackson, Toronto.

Capt. Thos. Donnelly, of Kingston, addressed the delegates on various marine matters, including the Turbinia-Primrose collision, and Acton Burrows, Manager of THE RAILWAY AND MARINE WORLD, spoke briefly, expressing his desire to co-operate with the Association in regard to the improvement of aids to navigation, etc. Incidentally he referred to the neglect of the Secretary, W. Ireland, to answer correspondence, and similar complaints were made by some of the delegates. When the election of Secretary was taken up W. Ireland was again a candidate, but was defeated by Capt. H. O. Jackson. It is believed that the securing of an efficient secretary will materially advance the interests of the Association.

The next meeting will be held in Toronto on the second Tuesday in Feb., 1907. It is expected that local associations will soon be established at Montreal, Wiarton, Muskoka Lakes and at a point on the Upper Lakes.

Hon. L. P. Brodeur has been sworn in as Minister of Marine and Fisheries in succession to the late Hon. R. Prefontaine.

Justice Dunlop of the Quebec Superior Courts has been appointed a Deputy Judge in Admiralty of the Exchequer Court of Canada.

The special report of H. Holgate, C.E., upon construction matters on Trent Valley Canal, criticizes the work done under the charge of R. B. Rogers, Superintendent and Engineer; R. A. Davey, resident engineer, Kirkfield; D. E. Bethune and —. Spence, inspectors of construction at Kirkfield and Peterboro respectively, and it is understood that their resignations will be asked for.

The annual meeting of the National Association of Marine Engineers was held at Levis, Que., Feb. 1 and 2, when there was a large attendance of delegates from the local organizations in Ontario, Quebec and the Maritime Provinces. The officers for the current year are: Grand President, F. S. Henning; Grand Vice-President, J. S. Crepeau; Grand Secretary, N. J. Morrison; Grand Conductor, T. Therault; Grand Guardian, D. Leclerc; Auditors, J. Gillis, W. Noonan.

The Navigation of the St. Lawrence.

In connection with this question it is well to bear in mind that the accidents that have taken place may be called strandings, with practically no dangers or loss of life. The question that arises here is, what can best be done to avoid these strandings in future?

In the first place a vessel touches above Lake St. Peter where there is practically no rise or fall of the tide. To get her off she requires to be lightened, and as a rule the rivalry of the enterprising press of a lower port usually makes the most of the grounding, which generally spreads and does considerable harm to the St. Lawrence route, for the majority of the travelling public do not know whether the accident is above or below Quebec. Take the port of New York. There is hardly a week passes but that some such accident takes place, and practically nothing is heard of it, and the Baltimore press never calls the dredged channel at Sandy Hook a "ditch." No one benefits by the attacks on the channel above Quebec, but the loss is to the whole Dominion by diverting passengers and freight for transit and shipment to rival foreign ports.

The Government has a good deal in hand in connection with the different improvements and aids to navigation, and has completed a 30-ft. channel with a minimum width of 450 ft. between Sorel and Montreal, which is lighted with gas buoys, and enables vessels to navigate and arrive in Montreal at night. This part of the channel has practically been free of accidents, with the exception of a collision, and this may be said took place owing to the want of knowledge of those in charge of one of the vessels, and there is every prospect of the channel being completed between Sorel and Batiscan, except the Lake St. Peter work and Champlain curve this year. Below Quebec the Government has had to construct a special dredge to deepen the channel near Crane Island, where there is at present 21 ft. at low water. In addition to this, the establishment of range lights in the channel has been found of great assistance to those navigating it.

The Government has at last taken control of the pilotage service between Montreal and Quebec. This is an important factor in navigating on the route. The system of admitting and licensing pilots, and of regulating the employment, has been unsatisfactory to all concerned, and it is the general opinion that anyone who is able to pass the necessary examination and can prove he has acquired the necessary experience should be admitted to practice as a pilot, and the examination should be held before competent nautical examiners, and after he is admitted the least possible number of restrictions should be placed upon the pilot in the exercise of his calling. It should be within his power, if he is competent and industrious, to become prominent in his calling, earn the most he possibly can for his work, and acquire all the experience he is able to gather. In the past pilots were limited to one voyage a week, in order that colleagues who were less able or industrious might make a living. This is now practically done away with. The greatest incentive for the man for the efficient purpose of his duties, is the knowledge that there are others ready and able to fulfil them in his stead if they can secure the opportunity of doing so.

It is not in the interest of anyone that pilots should find themselves in a position which practically makes them masters of the situation, and secure them from all risk of competition. The solution of the past and present difficulties is to be found in remedying the present system, and if the proper steps are taken by the Minister of Marine to make the examination and the licensing of the pilots thorough, everything

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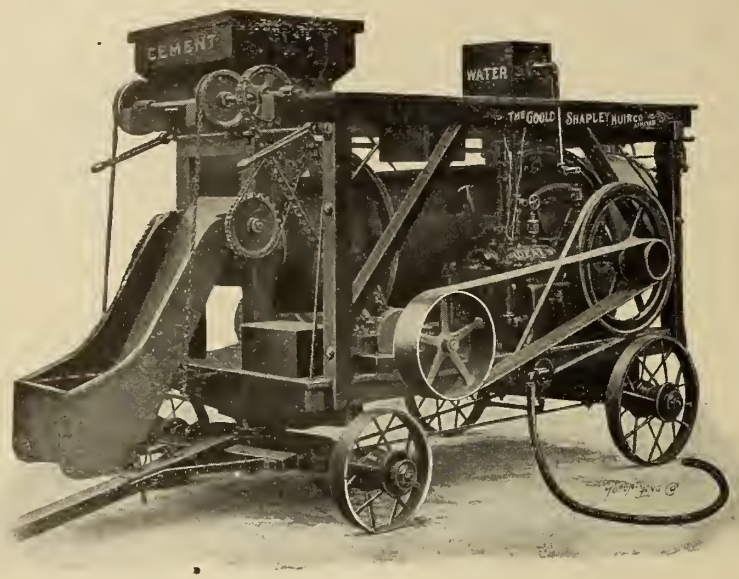

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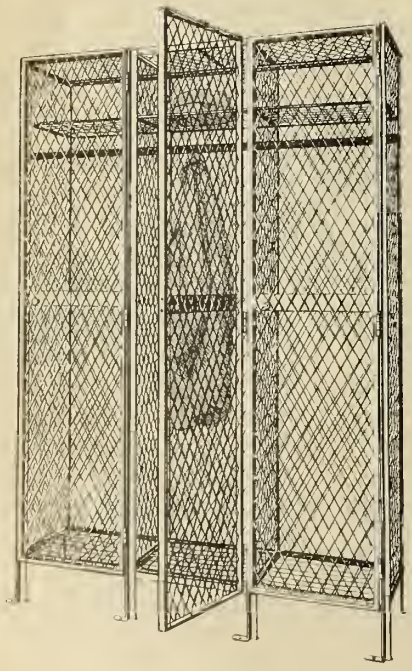

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fter that should be left to the ship-owners nd the pilots to settle between themselves. hip-owners are willing, and will pay a good rice for good pilots, but it is unfair to ask hem to pay a good price for bad or indifferent ilots. The fees at present charged for the ervice of a pilot, in comparison with the mount of work he has to do, are certainly xcessive, and some of them are making as uch as $2,366.30 for six months' work, and hey can do something else for the remaining ix months. The present fees have been in orce for many years, and were fixed at a ime when it took sometimes days for a sailing essel to go from Quebec to Montreal. ilots are still paid the same rate for work hich now probably takes up from ten to ourteen hours of their time. The total mount earned by each pilot appears in self to be excessive when compared with he amount of work they do. It is clearly ut of all reason. Ship-owners do not object o pilots earning as much or more than they o at present, but they think they should be bliged to do more work for it.

The late Minister of Marine introduced nto Parliament a bill which empowered him o take the place of the harbor commissioners f Quebec as the pilotage authority below uebec. The pilots below Quebec are formed nto a corporate body, and have certain owers that give the rights of the pilotage elow Quebec to the members of their corpora- ion. This practically means a monopoly, nd no one can become a pilot without first f all being a member of the Corporation of ilots. The Corporation controls and divides he earnings of the members so that the man ho does the least work gets the same share s the man who does the most. The prin- iple of this is bad, and prevents the further eveloping of the abilities of pilots, and ractically puts them all on the same level, naking the idle and incompetent pilot think hat the country owes him a living, and that e should be provided with experience, ork and an income at the expense of the ountry, the same as his competent and nergetic colleague.

There can be no just reason why those who re idle, incompetent or unlucky, should be rovided with a living in this particular calling ny more than in any other. There must e failures in every walk of life, and pilots re certainly no exception. There is no eason why the pilotage below Quebec should eep on the active list 119 men whose total ross earnings for 1904 amounted to $109,000, nd who had an average number of 14½ rips per pilot, the distance between Quebec nd Father Point being 157 miles. Com- are this with the Montreal pilotage, which as 53 pilots, which number has been found ufficient for the present requirements of he trade. Their total earnings amounted o $70,000, the largest sum earned by any ne pilot was $2,360, and the smallest $262. he average number of trips per pilot was 9, the distance between Montreal and Que- ec being 140 nautical miles. This practi- ally shows that the Montreal pilots do double he work that the Quebec ones do, and there s only one way of remedying this, viz., to hrow the St. Lawrence pilotage service ntirely open to all experienced and com- etent navigators, and that no restrictions e made in the numbers, and if there is insuf- icient work for those enrolled, there is no eason why they cannot find employment in ther walks of life.

Capt. Amundsen, the Norwegian navi- ator who reached Yukon Territory recently nd reported having discovered the north- est passage connecting the Atlantic and acific oceans, has returned to his vessel, he Gjoa, lying off Herschel Island, near the outh of the Mackenzie River.

The Lake Freight Outlook.

Our Winnipeg correspondent writes as follows:—"A general survey of the prospects for the coming freight season on the Great Lakes warrants the conclusion that all records of the past will sink into oblivion when the tale of 1906 is told. The grain trade, which is the backbone of the Canadian merchant marine, is in an unusually prosperous condition after the phenomenal crop of last season, and the best authorities figure that of that crop there is yet to move over the lakes some 50,000,000 to 60,000,000 bushels of wheat alone, which is more than was moved during the entire season last year. On top of the wheat there is also about one hundred million bushels of oats, barley, flax, etc., which in itself is sufficient to keep the Canadian fleet busy until the new crop is moving. In the past the lack of proper facilities at the east end of the route has prevented Canadian vessels from reaping their share of the benefits of the western prosperity by the diversion of a large percentage of the crop to U.S. ports in U.S. vessels, and while the G.T.R. has on order sufficient equipment to take care of the business, very little of this will be available for the spring movement, and the blockades at the eastern elevators will again drive considerable grain to Buffalo. Opening grain rates have been made by the Canadian vessels at 2¼c. per bush., Fort William to Georgian Bay ports, and 7¼c. to Montreal; in the latter case marine insurance being included. Owing to the large quantity of grain remaining in the western country, chartering commenced very early this season, some being done as early as the first of the year, and by the middle of Feb. practically 75% of the Canadian fleet had been chartered, shippers in their anxiety to secure first boats at the opening running the rate up to as high as 2¾c., but a number of owners are holding off for 3c. for the first trip, with every prospect of getting that rate, as the first boat at the opening sometimes means a term of storage saved to the shipper at the western terminal.

Owing to the exceptionally large movement of iron ore already contracted for on the U.S. side of the line, the U.S. fleet is likely to be too busy with its own contracts to pay any attention to the Canadian market either in grain or coal, and therefore it is expected that Canadian vessels will handle a much larger percentage of the coal into the Canadian head of the lakes than in former seasons, more especially as the new coal dock at Port Arthur will be in operation at the opening of navigation, which will mean the abandonment of the West Fort William docks, these latter docks being so poor in the matter of despatch and lack of room that in the past the Canadian vessels have preferred to come up light rather than subject themselves to the inevitable delays at the West Fort. While some Canadian coal contracts have been made for the lake haul no rate has yet been arranged, but in view of the amount of other tonnage which is already in sight, coal freight will no doubt range slightly higher than last season. Owing to the continued prosperity at Sault Ste. Marie, the Lake Superior Corporation will not only exclusively use its own bulk carriers in its own ore, coal and rail trade, but has already chartered a number of outside vessels for the same trades, and the Midland smelter has also done some chartering ahead, while the ore movement to Hamilton, via Point Edward, is still being handled by a contract which has some years yet to run. U.S. ore rates from Duluth and Two Harbors to Lake Erie ports remain the same as last season, viz., 75c., but rates to Canadian ports are a matter of arrangement on each charter, and are therefore not public, but in view of amount of freight in sight for the coming season, a 75c. rate has been mentioned by owners as being about what they expect to secure on season contracts.

The prosperous conditions prevailing last season have induced several owners to arrange for additional tonnage, chief among which may be mentioned the new 10,000 ton vessel for the Midland Navigation Co., the vessel to be delivered in time for the fall movement. This vessel should carry without any trouble 300,000 bushels of wheat, and with good water may handle 350,000. The Farrar Transportation Co. is having plans prepared for a vessel of the same size, and expect to have it ready for the spring of 1907. The Collingwood Shipping Co. has ordered a vessel of 125,000 bush. capacity in England, and expects to have her ready at the opening of navigation this spring. J. T. Matthews, of Toronto, is also expecting a new canal-size vessel out in the spring which he expects to run between Montreal and Fort William in the package freight trade. Besides these there are a number of U.S. steel vessels of about 100,000 bush. capacity under option to Canadian owners, so, considering all sides, there is not likely to be any shortage of Canadian tonnage on the lakes for some time to come, especially as the present fleet is fully capable of handling the western crop as fast as the western railways can get it to the lake front, provided the despatch at eastern elevators is at all reasonable.

Lake Wheat Rates for 1906.

The following minimum rates for the carriage of wheat from Fort William or Port Arthur in Canadian vessels have been agreed on by the grain carriers' section of the Dominion Marine Association.

A. To all Canadian and U.S. ports above Lake Erie. From opening of navigation to May 31 inclusive, 2¼c.; from June 1 to June 30, both inclusive, 2c.

B. To Montreal. From opening of navigation to May 31 inclusive, 7¼c. insured by carrier; 7c. insured by shipper. From June 1 to June 30, both inclusive, 7c. insured by carrier; 6¾c. insured by shipper.

C. To Kingston or Prescott. From opening of navigation to May 31 inclusive, 5⅜c. insured by carrier; 5⅛c. insured by shipper. From June 1 to June 30 inclusive, 5⅛c. insured by carrier; 4⅞c. insured by shipper.

The carrier cannot insure cargo in shipments A. Rate B is rate A plus an announced "rail rate" of 5c. Rate C is rate B, less the new river rate of 1⅞c. Rates B and C will increase or decrease by whatever fraction of a cent the "rail rate" may vary from the basis of 5c. taken; and the words "rail rate" are to mean the net cost to the shipper or consignee "at and east" of Georgian Bay to Montreal. The above minimum for June is to apply to July and August shipments arranged for prior to a meeting to be held not later than June 15, and no rate for shipment after August is to be given prior to such meeting. It is expected that the first trips on the opening of navigation will be at somewhat higher figures than the minimum figures above given.

Notices to Mariners.

The Dominion Department of Marine has issued the following notices:

No. 1. Jan. 3.—British Columbia—1. Strait of Georgia, time of slack water. 2. Strait of Georgia, time of the tide.

No. 2. Jan. 10.—Quebec—3. River St. Lawrence, chart Ile a l'Aigle to Ile Marie, issued.

No. 3. Jan. 17.—Ontario.—4. Georgian Bay, east side, Brebeuf range, lighthouse on Beausoleil Island raised. 5. Lake Huron, Great Duck Island, intended change in fog

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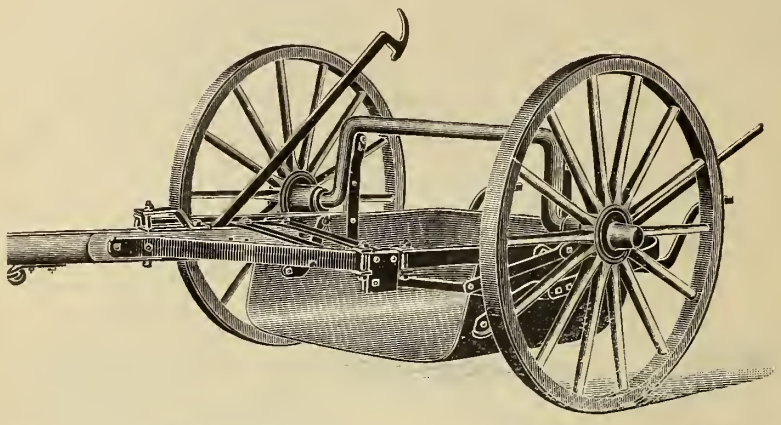

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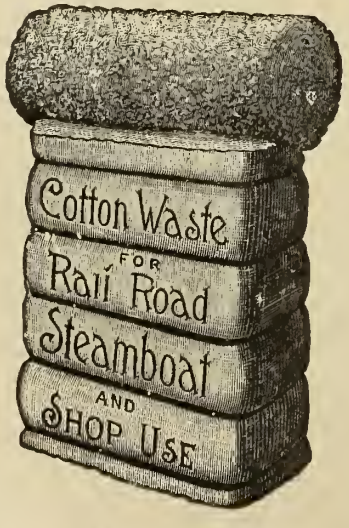

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ATLANTIC TRANSPORT LINE.
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Sailing from New York on Saturdays.

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BOSTON—LIVERPOOL.
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NEW YORK — QUEENSTOWN — LIVERPOOL.
Regular Weekly Service.

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NEW YORK AND BOSTON-MEDITERRANEAN SERVICE
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Sub-agents at all principal points in Ontario, where accommodation can be reserved and tickets secured.

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BOSTON & MAINE RAILROAD

Three direct lines between Canada and Boston and other New England points, via Montreal, or Niagara Falls and Buffalo.

VIA C.P.RY., AND NEWPORT, VT.

Lv.	Montreal	*9.00 a.m.,	*7.45	p.m.
Arr.	Lowell	*7.29 p.m.,	*6.37	a.m.
"	Worcester	†9.04 "	*9.19	"
"	Boston	*8.15 "	*7.30	"

VIA G.T.RY., AND WHITE RIVER JCT.

Lv.	Montreal	*9.01 a.m.,	*8.40	p.m.
Arr.	Lowell	*6.11 p.m.,	*7.17	a.m.
"	Worcester	†9.04 "	*9.19	"
"	Boston	*6.55 "	*8.05	"

VIA G.T.RY., WEST SHORE & ROTTERDAM

Lv.	Toronto		*4.10	p.m.
"	Niagara Falls		*6.30	"
"	Buffalo	*4.30 a.m.,	*7.20	"
Arr.	North Adams	*1.08 p.m.,	*5.11	a.m.
"	Worcester	*4.55 "	*9.59	"
"	Boston	*5.20 "	*9.50	"

TO PORTLAND, ME., AND OLD ORCHARD, ME.

Through the Heart of the White Mountains and famous Crawford Notch, via C.P.Ry.

Lv.	Montreal	†9.00 a.m.
Arr.	Portland	†8.00 p.m.
"	Old Orchard	†8.16 p.m.

*Daily. †Except Sunday.

All Trains have Parlor or Sleeping Cars

D. J. FLANDERS G.P. & T.A. **Boston, Mass.**
ARMAND LALONDE Can. P. & F.A. **Montreal**

alarm. 6. Lake Huron, north channel, Blind River, changes in range lights, buoyage, hydrographic notes.

No. 4. Jan. 17.—Nova Scotia.—7. Halifax harbor, Camperdown, wireless telegraph station established. New Brunswick.—8. Bay of Fundy, Gannet rock tower, height of building.

6. Feb. 1.—New Brunswick—14. South coast, Bay of Fundy, St. John harbor, off Negro Point, gas buoy established. Nova Scotia—15. South coast, Ragged Island harbor approach, Lockeport, whistling buoy replaced by gas and whistling buoy. Newfoundland Labrador—16. Belle Isle, position of wireless telegraph station corrected.

7. Feb. 2.—Quebec.—17. River St. Lawrence, chart, Ile Bouchard to Ile St. Ours issued. 18. River St. Lawrence, chart, Isle aux Foins issued.

No. 8. Feb. 7.—British Columbia—19. Chatham sound, Oriflamme passage, Green island, lighthouse established.

Muskoka Lakes Navigation and Hotel Co., Ltd.

The following financial statements for the season of 1905 were presented at the annual meeting in Toronto, Jan. 26:—

TRANSPORTATION—REVENUE AND EXPENSES.

REVENUE.

Passenger	$52,897.93
Freight	18,811.28
Table	12,512.28
Houseboat Victoria	140.00
Mail	3,824.80
Express	381.25
Refreshments	500.00
Towing	1,896.45
	$90,963.99

EXPENSES.

Provisions	$13,234.72
Fuel account	9,558.05
Running expenses	17,167.12
Oil and waste	557.75
Laundry	330.33
Houseboat Victoria	40.53
Steamers Gravenhurst running exp	1,126.90
Painting and repairs	6,114.83
Marine railway expenses	117.12
Marine shop expenses	43.89
Wharf repairs	55.16
Scow repairs	115.68
Insurance	942.00
Travelling	339.75
Postage and telegrams	203.36
Printing and advertising	1,181.88
President and directors	342.50
Office expense	2,878.31
Sundries	1,760.61
Charlie M., false sides	344.81
Ahmic, alterations	377.21
Oriole, boiler	1,055.87
Surplus revenue	$33,075.61
	$90,963.99

HOTEL DEPARTMENT—REVENUE AND EXPENSES.

REVENUE.

Board receipts	$38,928.67
Wine and bar receipts	4,619.75
Laundry receipts	740.60
Rents	600.00
Baths	52.25
Billiards	35.67
	$44,976.94

EXPENSES.

Provisions and supplies	$13,813.46
Wages—dining room, kitchen and house keeper	5,084.99
Wages—porters, bell boys and watchman	494.07
Wine and bar stock	2,502.37
Wine and bar wages	313.55
Laundry stock	239.11
Laundry wages	572.85
Miscellaneous help	1,263.05
Caretaker	677.82
Office and general expense	5,094.94
Engine room expense	1,073.58
Engine room wages	689.15
Stationery	417.05
Music	689.88
Advertising	1,449.09
Golf	267.51
Freight	1,735.00
Fares	760.15
Insurance	3,095.19
Taxes	313.50
Expense re storm	559.37
Maintenance	30.75
Renewals	3,470.92
Net gain on hotel operations	368.99
	$44,976.94

PROFIT AND LOSS.

Surplus revenue, Royal Muskoka	$ 368.99	
Surplus revenue, transportation	33,075.61	
G.T.R., rent account	7,739.59	
Unclaimed balances	137.88	
		$41,322.07
Interest and discount	$ 5,277.81	
General expense, head office	81.33	
Disbursements, 1904	994.22	
Loss on sale Magnetawan division	565.73	
Value scow Beaver written off	175.00	
Goods lost and damaged	56.77	
Accounts written off	110.06	
		7,260.92
		$34,061.15
At credit of profit and loss, 1904		22,680.19
		$56,741.34

BALANCE SHEET.

ASSETS.

Cash on hand	$ 114.49	
Cash in bank	2,877.46	
Accounts receivable	3,852.27	
G.T.R., accounts receivable	7,458.31	
Capt. R. J. Watson	507.57	
		$14,810.10
Inventories, transportation	$ 2,673.17	
Inventories, Royal Muskoka	797.78	
		3,470.95
Steamers and outfits (8)	$ 92,828.36	
Barges (4)	825.00	
Houseboat (1)	1,124.26	
Dry docks and equipment (3)	11,119.60	
General equipment	753.65	
Wharves and storehouses (3)	1,272.69	
Offices and furniture	1,311.85	
Ice houses	297.69	
Real estate	724.22	
		110,257.32
Royal Muskoka, construct'n	$122,629.87	
Royal Muskoka, furniture and equipment	42,170.84	
Royal Muskoka site	6,073.00	
Royal Muskoka, charter	1,034.54	
		171,908.25
G.T.R., good-will account		14,900.02
		$315,346.64

LIABILITIES.

To the Public:		
Accounts payable	$ 1,238.22	
President and directors	685.00	
Auditors	200.00	
		$ 2,123.22
Canada Permanent Mortgage Corpor'n		69,670.00
To the Shareholders:		
Capital stock	$173,634.89	
Contingent fund	13,177.19	
Unappropriated profits	56,741.24	
		243,553.42
		$315,346.64

The financial statement was received and considered satisfactory, and a by-law was passed reducing the number of directors to six. Following are the officers and directors for the current year:—President, J. S. Playfair; Vice-President, F. J. Phillips; other directors: Sir J. Boyd, J. R. Cockburn, G. T. Fergusson, R. A. Lucas, H. C. McLean, M. S. Wilson. Under the new by-law two of the directors will retire, viz., Sir J. Boyd and G. T. Fergusson. W. F. Wasley, heretofore acting Manager and Treasurer, has been appointed Manager.

The Manchester Ship Canal has recently been successfully navigated by the Drayton Grange, a steamer of 6,592 tons gross.

A writ has been applied for by the executors of the J. J. Long estate, owning four-ninths interest; S. H. Lindsay, executor of the estate of C. Cameron, owning three-ninths interest, and J. K. McLaughlin, owning one-ninth interest in the str. City of Windsor, against Capt. P. Campbell, owning the other ninth interest, for an order compelling him to carry out an alleged agreement signed by him to transfer the steamer to the Northern Navigation Co. This company agreed to accept the steamer in part settlement of the damages awarded in its action against the Long estate, and the executors undertook to deliver the vessel. There appears to be some differences between Capt. Campbell, in whose name the steamer is registered, and the Long estate, which he claims require adjustment.

Northern Navigation Co. of Ontario.

There was a small attendance at the annual meeting in Toronto, Jan. 30, at which H. C. Hammond, President, occupied the chair. The report and statement of accounts, as published in our last issue, were adopted after a brief discussion, in the course of which Acton Burrows said that the result of the recent suit against the executors of J. J. Long was a complete vindication of the course he had adopted at the annual meeting two years ago, when he exposed the methods of the Long management. He also called attention to the fact that the auditors' certificate was printed on the back of the report, but their names were not appended to the financial statements as printed. This was the same plan that had been adopted in previous years, and at the recent trial the auditors had sworn that the accounts presented to the shareholders on one occasion were not the ones they had certified to. He was satisfied that the affairs were being honestly conducted under Mr. Hammond, but in view of what had occurred in the past he thought the auditors' signatures should be appended to the financial statements, and not merely to a separate certificate.

In answer to a question, Mr. Hammond said that he did not think the shareholders need expect a greater dividend than 6% for some time to come.

The directors were re-elected as follows:—H. C. Hammond, Hon. J. S. Hendrie, F. A. Lett, W. D. Matthews, W. J. Sheppard, H. B. Smith, C. E. Stephens, H. Y. Telfer, C. D. Warren.

A resolution thanking Mr. Hammond for his untiring efforts on behalf of the company having been moved by Acton Burrows, a shareholder suggested that the other directors be included, but Mr. Burrows declined to agree to this on the ground that several of the directors had been on the board for years during the time that the company was being exploited for the benefit of the Long Bros., and that if they did not know what was going on they should have known, and should have prevented it.

The directors re-elected H. C. Hammond President, W. J. Sheppard Vice President, and C. E. Stephens Secretary-Treasurer.

H. Bourlier, who recently retired from the Allan Line Steamship service, having resigned the Presidency of the Toronto Steamship Agents' Association, C. A. Pipon, Passenger Agent for Ontario for the International Mercantile Marine Co., has been elected President of the Association. A. F. Webster is the Secretary-Treasurer.

A deputation consisting of T. Robb, Manager and Secretary Shipping Federation of Canada; F. L. Wanklyn, Dominion Coal Co., and a member of the Executive Committee of the Shipping Federation, and Mr. Scantlebury, mechanical engineer, Montreal, waited on the Minister of Marine, at Ottawa, Feb. 12, in reference to the inspection of boilers upon vessels plying on the St. Lawrence, which are subject to British inspection, and to urge that under the circumstances there was no necessity for the officials of the department to apply hydraulic pressure in their inspections. No memorial was presented on the subject, but arguments were advanced. The object of the delegation, we are informed, was to endeavor to get freight steamers registered outside of Canada, but engaged in the coasting trade of Canada, exempted from the Canadian annual inspection. At present there are a large number of British built steamers, some of which, however, are registered in Norway and Sweden, engaged in the coasting trade in Canada, all of which are subject to the Canadian Inspection Act, and are inspected annually by the officers of the department.

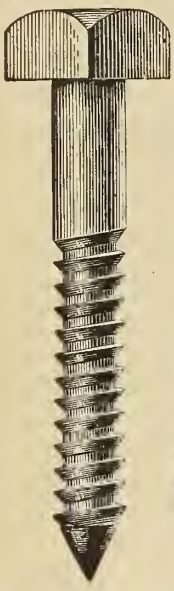
TORONTO BOLT AND FORGING CO.

LIMITED

Manufacturers of

BOLTS AND NUTS

OF ALL KINDS, INCLUDING

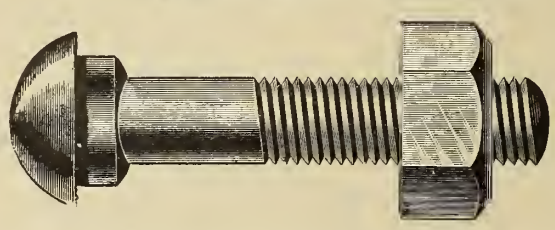


Track Bolts

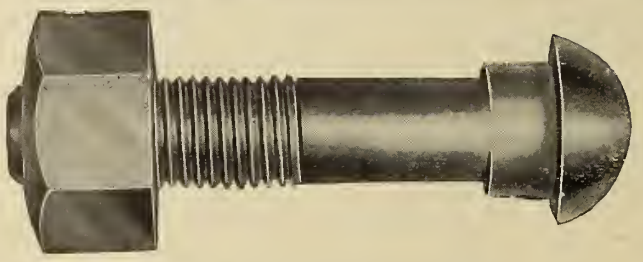
Track Spikes

Lag Screws

Boiler and Bridge Rivets



TORONTO — CANADA



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Made from material rolled in our own mill, to which special care is given to see it is perfectly round and exact to size.

Threading also is given a close inspection, thus insuring accuracy in this respect.

Made by us in Oval, Square or Pear Neck, Square or Hexagon Nuts. Rolled or cut threads.

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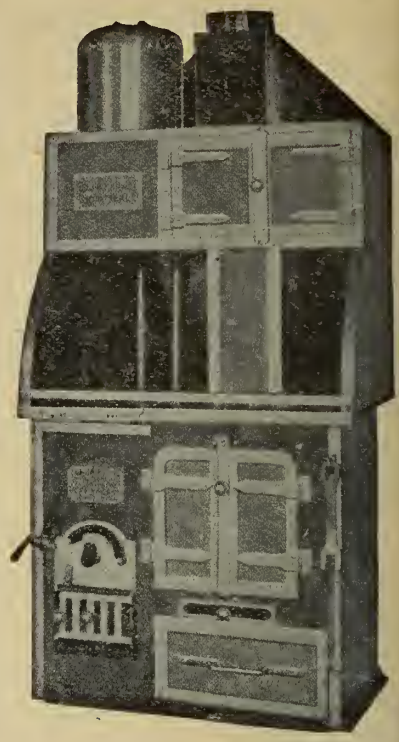
"STANDS FOR QUALITY"



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Is the Great Trunk Line between the east and the west, the short and true route from Canada to Hot Springs, Ark., the greatest health resort in America, Old Mexico the most interesting country on the face of the globe, Texas and California the lands of sunshine and flowers. The through trains on the Wabash are acknowledged by travelers to be the finest in America. For time-tables and other printed matter, address any Wabash Agent, or

J. A. RICHARDSON
District Passenger Agent,
North-East Corner King and Yonge Streets
TORONTO; and ST. THOMAS, ONTARIO

Atlantic and Pacific Ocean Marine.

The finding of the court which investigated the stranding of the Allan Line str. Bavarian on Wye Rock, Que., Nov. 3, 1905, as published in our Jan. issue, has been issued in London, Eng., by the Imperial Board of Trade.

The C.P.R. str. Monteagle, heretofore in the company's Atlantic trade, has been transferred to the Pacific Ocean, and will leave Hong Kong on her first trip to Vancouver, B.C., May 2. She is a twin screw steamer of 5,500 tons, and has accommodation for 125 saloon passengers.

The Department of Marine has issued an additional notice to the effect that in the list of Marconi wireless telegraph stations issued Dec. 19, 1905, and given in our last issue, pg. 99, there should have been added the station at Camperdown heights, at the entrance to Halifax Harbor, N.S.

Several marine surveyors recently visited the wrecked str. Bavarian, on Wye Rock, Que., and report her to be in the same position as when she stranded. The surveyors state that there is no reason to doubt her safety during the remainder of the winter and express confidence in her being floated in the spring.

The launching of the Empress of Ireland, the second of the two trans-Atlantic liners under construction at Glasgow, Scotland, for the C. P. R., took place Jan. 27. The steamer was named by Mrs. A. Gracie, wife of the Managing Director of the builders, and Archer Baker, European Manager, represented the C.P.R.

The contract arranged with the Allan Steamship Lines for the carrying of the Canadian mails to Great Britain provides that the turbine steamers Victorian and Virginian will each earn $5,000 a trip, and the Tunisian and Bavarian, the next two in speed, $3,750 a trip. All four have to make 10 trips a year. The remaining vessels of the Allan fleet are to be paid at the rate of $2,500 a trip, and have to make weekly runs.

The Dominion Line is reported to be making arrangements to put on some additional steamers on its St. Lawrence-Liverpool route at the opening of navigation to Montreal in May. It is stated that the Ottawa and Kensington will be taken off the route and replaced by the Majestic and Teutonic, at present in the White Star Line between Liverpool and New York. Another report states that two large new steamers will be ordered for the season of 1907.

The announcement was made Feb. 1 by Sir T. G. Shaughnessy, President C.P.R., that it had been decided to make Quebec its summer port for its new steamers, Empress of Britain and Empress of Ireland. At a meeting of the Quebec Harbor Commissioners held Jan. 30, a resolution was passed favoring the granting to the company of all the facilities required for the purpose. The company has secured accommodation in the Richelieu and Ontario Navigation Co.'s building, Quebec, for its offices.

The action of Wm. Petersen, and Wm Petersen, Limited, of Newcastle-on-Tyne, Eng., against Sir W. G. Armstrong, Whitworth & Co. (Limited), Elswick-on-Tyne, Eng., to recover damages for breach of contract, came before the Supreme Court of Judicature, recently, but judgment has not been given. The plaintiffs were negotiating with the Canadian Government with a view of obtaining subsidies for running a line of fast steamers between Canada and Great Britain, and state that the defendants entered into an agreement with them in connection with the matter; on the Armstrong firm withdrawing its support the plaintiffs were unable to go on with the project and desire to obtain damages. The defendants deny that any agreement was arrived at; that there were merely negotiations with the Canadian Government for the proposed line, and that they were justified in the withdrawal.

The Allan Line fleet comprises 27 vessels having a total tonnage of 149,635 tons. Following are the steamers:—

Virginian, turbine, triple screw	12,000	tons
Victorian, " "	12,000	"
Tunisian, twin screw	10,576	"
Bavarian, "	10,376	"
Ionian, "	8,265	"
Corinthian, single screw	6,226	"
Pretorian "	6,202	"
Parisian "	6,395	"
Sicilian "	6.126	"
Mongolian "	4,837	"
Numidian "	4,835	"
Laurentian "	4,522	"
Hungarian "	4,508	"
Hibernian "	4,505	"
Carthaginian "	4,444	"
Sardinian "	4,348	"
Ontarian "	4,309	"
Pomeranian "	4,207	"
Buenos Ayrean "	4,192	"
Livonian "	4,017	"
Sarmatian "	3,920	"
Siberian "	3,845	"
Orcadian "	3,546	"
Corean "	3,487	"
Brazilian "	3,046	"
Monte Videan "	2,951	"
Rosarian "	2,950	"

The Ocean Steamship Co. and the China Mutual Steam Navigation Co., maintain a joint service between London, Glasgow and Liverpool, Great Britain; Victoria and Vancouver, B.C.; Tacoma and Seattle, Wash.; Yokohama, Kobe, Hong Kong, and other Asiatic ports. Freight is carried on through bills of lading for San Francisco and all Pacific coast points, and from Puget Sound to Australia and European ports as well as to ports in Asia. The steamers leave Great Britain for Vancouver and Victoria, and Tacoma for the Orient, about every 28 days. The Ocean Steamship Co. has a fleet of 36 steamers having a gross tonnage of 180,409 tons, and has five steamers of over 8,000 tons each under construction. Reference was made to these steamers in our last issue. The China Mutual Steam Navigation Co. has a fleet of 13 steamers having a gross tonnage of 76,055 tons. The managers are Alfred Holt & Co., Liverpool, Eng., and Dodwell & Co. (Ltd.), are agents at Vancouver and Victoria, B.C.

The contract for the new steamship service between Vancouver, B.C., and New Zealand, was entered into by the Dominion Government and R.A. Alley, of Vancouver, steamship and financial agent. The contract calls for the inauguration of the service within three months of the signing of the agreement with New Zealand, and the first sailing from Vancouver is to be two months after the first sailing from New Zealand. The subsidy is £10,000 a year, payable in four instalments, £1,600 each, on the completion of each of the first four round voyages, and the balance of £2,000, on the completion of the year's services, and so on annually. The agreement is for three years, and the rates for freight and passengers are to be subject to the approval of the Department. The ports of call in New Zealand are to be Auckland, Wellington, Lyttelton, Dunedin and Bluff, and the contractor has been authorized to arrange calls at Victoria, B.C., and Fiji. The first steamer to be placed on the route is the Beucentaur, which sailed from England Jan. 27, for West Port, New Zealand, via Cape Town. She is due to reach West Port about April 10, and is expected to leave New Zealand for Vancouver about April 25, and the first sailing from Vancouver for New Zealand will be about June 15. The other steamer to be employed on the service will be the Afrikander, or should circumstances require, the Transvaal.

Maritime Provinces and Newfoundland.

The shipbuilding yards at Lunenburg, N.S., have under construction five schooners for launching in the spring.

The United States ocean tug Gypsum King, recently wrecked at St. Mary's Ledge, N.B., has been sold by the underwriters for $175.

The Boston, Mass., tug Underwriter was seized by the Canadian Customs authorities and fined $400 for failing to report her arrival at Campobello, N.B., on a recent trip.

The investigation into the loss of the Halifax str. Lunenburg on the Magdalen Islands, Que., recently, has been concluded at Halifax, N.S., but the finding of the court has not been given out.

The Neptune Whaling Co.'s affairs are being wound up in liquidation. The company's land, factories, etc., at Lark Harbor, Bay of Islands, Nfld., and its str. Neptune have been sold by the liquidators.

W. F. Napier, Restigouche, N.B.; W. Currie, Campbellton, N.B.; W. H. McLeod, Richibucto, N.B., have been appointed members of the pilotage authority of Richibucto, N.B., in place of three deceased members.

Capt. Jas. Sutherland, North Sydney, N.S., has been appointed examiner of masters and mates for the port and district of North Sydney, in place of Commander Worgan, resigned. He has also been appointed instructor for the marine school there.

The Reid Newfoundland Co.'s str. Bruce left the dry dock at St. John's, Nfld., in the beginning of Feb., after a thorough overhaul. Her place in the dry dock was taken by the Cacouna for general repairs and over-

NOTICE

is hereby given that the Annual Meeting of the Shareholders of the **VICTORIA ROLLING STOCK COMPANY, OF ONTARIO, LIMITED,** will be held at the office of Messrs. Osler & Hammond, 21 Jordan Street, Toronto, on **WEDNESDAY, 7TH MARCH, 1906, AT 12 O'CLOCK NOON,** for the reception of the Annual Report and election of directors for the ensuing year.

By order,
R. A. SMITH, Secretary.

Toronto, Feb. 8, 1906.

RAILWAY SPRINGS

Locomotive, Tender and Passenger Car Springs of every description

Equalizing, Draw-bar, Buffer and Spiral Springs of all kinds

Street Railway Springs from the largest to the smallest

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CAPITAL, $1,000,000.

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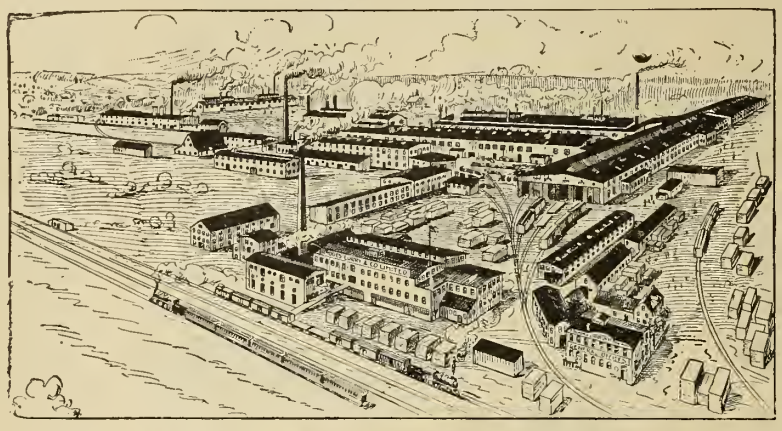
RAILWAY and STREET CARS

Special Cars for All Purposes.



Car Wheels, Axles, Forgings, Castings, Etc.

CAPACITY PER MONTH

300 Freight Cars 4 Passenger Cars 4 Snow Plows 3,000 Car Wheels
2,500 Car Axles 500 tons Castings 1,000 tons Forgings

DOMINION BUREAU

ROBERT W. HUNT & COMPANY, ENGINEERS

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529 Board of Trade Bldg., St. Sacrament St., Montreal

NORFOLK HOUSE, CANNON ST., LONDON

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St. Lawrence Floating & Wrecking Co.

CAPITAL - $200,000

OFFICERS—J. W. HARRIS, President; H. A. RICHARDSON, Vice-President
JOSEPH DURAND, Secretary-Treasurer.

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All forms of deep sea and river wrecking contracted for on "No cure no pay" basis. This company is in possession of the most perfect wrecking and salvaging equipment in the Dominion of Canada. Representatives wanted in every sea or river port in the Dominion.

DEPARTMENT OF AGRICULTURE AND IMMIGRATION

MANITOBA with its network of railways, giving markets near at hand for all farm products, offers unrivalled opportunities for investment.

PROVINCIAL GOVERNMENT LANDS can still be purchased at from $3 to $6 per acre.

IMPROVED FARMS in all districts of the province can be purchased at from $10 to $40 per acre. These prices are advancing every year.

A FEW POINTERS

On arrival at Winnipeg the wisest policy for any new settler to adopt is to remain in Winnipeg for a few days and learn for himself all about the lands offered for sale and to homestead.

There are districts that have been settled for many years in which land can be purchased. Some of this may be unbroken prairie which still possesses all the richness and productive powers of our virgin prairies. Other lands, cultivated and having comfortable farm buildings, are ready for immediate possession.

There are Provincial Government lands, Dominion Government homesteads, and railway lands to be secured.

The price of land varies from $3 to $40 per acre.

Location with respect to railways, towns, timber and water determines the price of land.

For information regarding homesteads, apply at the Dominion Land Office.

For purchase of Provincial lands apply at the Provincial Land Office in the Parliament Buildings.

For C.P.R. or C.N.R. lands apply at the land offices of said railway companies.

For lands owned by private individuals apply to the various real estate agents in the city.

For situations as farm laborers apply to:

J. J. GOLDEN,

PROVINCIAL INFORMATION BUREAU

617 MAIN ST., WINNIPEG

E. L. DREWRY

REDWOOD BREWERY

WINNIPEG, MANITOBA.

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SPUR LOCK

For Locomotive and Car Construction

For use on Wood and Iron

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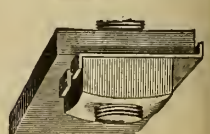
CHICAGO, - ILL.



TIE BAR LOOK

haul. The company's str. Eagle has been fitted with forced draught.

A number of St. John, N.B., newspaper men made a trip in a steam tug up the St. John River as far as Public Landing, Feb. 2. This point is about 400 yards further up the river than was reached Jan. 16, 1892, which was the previous record, both as to distance from St. John traversed and date.

A director of the Charlottetown Steam Navigation Co. is reported to have stated to a Charlottetown paper that the company's str. Princess had not been sold to the Dominion Government. It was reported that the Government had purchased the steamer for use as a revenue cruiser and survey steamer.

Several meetings of the managers and directors of the steamship companies doing business on the St. John River, N.B., have been held to discuss the question of an amalgamation with a view of eliminating the present losses. As a result it has been found impossible to come to any basis of agreement, and all the steamers will be running during the summer as usual.

F. W. Hales, Secretary of the Charlottetown Steam Navigation Co., died at Charlottetown, P.E.I., Feb. 17, aged 77. He was a native of London, Eng., and was long identified with the late Sir George Williams in founding the Y.M.C.A. He went to P.E.I. in 1850 and farmed for some years, becoming Secretary of the C.S.N. Co. on its organization in 1866. His daughter is the wife of T. C. James, Superintendent of the Anglo-American Telegraph Co. at Charlottetown.

It is reported in Boston, Mass., that C. W. Morse, of the Eastern Steamship Co., is negotiating for the purchase of the Canada Atlantic and Plant Steamship Co.'s charter and steamers. A. Perry, of Rockland, Me., who has control of the C. A. and P. S. Co., is reported to have said, Feb. 10: "It can be said positively that the Plant Line has not yet changed hands. It pays well, and I have no reason to sell, but of course I would sell if I were offered enough."

The Kennebecasis Steamship Co. has been incorporated under the New Brunswick Companies' Act with a capital of $20,000, and offices at St. John. N.B., to carry on a general navigation business on the St. John River and its tributaries. The incorporators include:—A. T. Mabee, S. H., R. G. Flewelling, A. W. Hicks, Hampton, N.B.; A. B., J. B. Moore, S. Cox, Westfield, N.B.; G. H. White, Sussex, N.B.; A. Flewelling, Kingston, N.B.; F. S. Mabee, St. John, N.B

Province of Quebec Marine.

The Montreal Transportation Co. has purchased the tugs Hall and Curlew from the U.S. for the purpose of towing grain barges from Kingston, Ont., to Montreal.

C. J. Smith, General Manager Richelieu and Ontario Navigation Co., Montreal, attended the annual meeting of the Association of Passenger Steamboat Lines recently held in New York.

Commander Spain, R.N., has taken over the control of the pilots on the Lower St. Lawrence from the Quebec Harbor Commission, on behalf of the Department of Marine. The control of the pilotage on the river from Montreal to the sea is now in charge of the Minister of Marine, and a general reform of the system will be undertaken.

The Dominion Government str. Montcalm returned to Quebec Jan. 29, from Seven Islands, having made the trip of about 600 miles in 46 hours actual running time, or 59 hours including stopover. Considerable ice was met with in the river, in some places the steamer having to cut her way through 20 inches.

The Lake St. John and Saguenay Navigation Co. has asked the Quebec Government for a five years' subsidy for the maintenance of its service on Lake St. John and tributary waters. The principal claim of the company for a subsidy is that it is promoting settlement in the district. The company's steamers will be operated on the following routes during the season:—St. Felicien, 20 miles; Mistassini, 46 miles; Honfleur, 33 miles; Peribonca, 32 miles; Grand Discharge, 36 miles; St. Jerome, 21 miles; St. Gideon, 28 miles. All steamers start from Roberval. These routes are on the Lake St. John Division.

The steamer which the Richelieu and Ontario Navigation Co. is having built at Toronto for running the rapids of the St. Lawrence River into Montreal will have the following general dimensions:—Length over all, 240 ft.; breadth of hull at main deck, 41 ft.; extreme breadth over wales, 43 ft.; draft, 6 ft. The steamer will be fitted with sleeping accommodation for passengers in 94 staterooms; there will also be provided four parlors and two bathrooms. On the promenade deck there will be a large observation space forward for passengers, then a cabin for shelter in stormy weather; behind which will be provided stateroom accommodation, a small cabin and a small open promenade space at the extreme stern. The hurricane deck will be above this, and will be left entirely open, except for a small cabin with staterooms, and will be used as an observation deck when running the rapids. This deck, which will be extended to the stern of the vessel, will be covered with a light awning. The pilot house and texas will be forward on this deck, and the pilot house will be sufficiently raised for the proper handling of the boat with passengers occupying the deck in front of it. The vessel will be propelled by twin screws, driven by two sets of triple expansion engines, each engine to have four cylinders working on four cranks, to be jet condensing with independent air pump. Steam will be supplied from Scotch or cylindrical return tubular-type boilers, to pass the Canadian Government inspection for a working pressure of 180 lbs., and to be fitted with a hot draught system. It is expected she will develop a speed of 18 miles an hour. The special fittings will comprise general donkey and fire pump, steam windlass, stockless anchors, hot draught fan with direct connected engine, fresh water pump and sanitary pump, ash ejector, combined steam and hand-steering gear of the most efficient type, and suitable for the quick handling of the vessel, necessary in the rapids; two direct connected multi-polar generating sets. The new steamer is expected to be completed in time to go into service during the 1906 season of navigation.

Ontario and the Great Lakes.

The harbor at Duluth, Minn., was open from March 30, 1905, to Feb. 10, 1906, a period of 318 days.

The annual meeting of the shareholders of the Rainy River Navigation Co. was held at Kenora, Ont., Feb. 7, when the retiring directors and officers were re-elected.

The str. Jessie Bain, it is expected, will be placed on the Deseronto-Picton route, instead of returning to the Gananoque-Clayton ferry run. She is being rebuilt at Kingston, Ont.

The Farrar Transportation Co., Collingwood, Ont., has decided to construct a new 9,000 or 10,000 ton steamer for the Upper Lakes, to be ready for the season of 1907, an order for which will probably be placed in March.

The Grand Lodge of the Shipmasters' Association has passed a resolution favoring the adoption of rules similar to those now in use on St. Mary's River, to be put in force and made obligatory on all vessels using the dredge channel of Detroit River.

The Port Huron and Duluth Steamship Co., which runs steamers between Sarnia, Ont., and Duluth, Minn., has purchased the str. Russia, which it has been operating for the past two years under charter. The company also operated under charter the str. Wyoming.

We were advised, Feb. 14, that the plans for the new steamer for the Niagara, St. Catharines and Toronto Navigation Co., to run between Toronto and Port Dalhousie, Ont., had not been completed. The new steamer is expected to be completed for the season of 1907.

A Congressional sub-committee at Washington, D.C., has recommended the granting of a federal charter for the construction of a canal from Pittsburg, Pa., to Ashtabula, Ohio. The projected canal would be 100 miles long and 12 feet deep, and is estimated to cost about $60,000,000.

The Dominion Fish Co. has purchased the freight and passenger str. Telegram from Capt. Cleland, to whom the D. F. Co. sold it in 1902. The steamer will be run on the Owen Sound, Wiarton, Lion's Head and Providence Bay route, in conjunction with the Manitou and Caribou.

The St. Lawrence and Chicago Steam Navigation Co. has placed an order for a steel freight steamer, which will be the largest yet built in Canada. She will be over 500 ft. in length, will be constructed on Lake Erie, and will run from the head of the lakes to Port Colborne, Ont.

The Hamilton and Fort William Navigation Co.'s directors reported at the annual meeting held recently that the season of 1905 had been a very profitable one, and the shareholders passed a resolution declaring a dividend of 8%. The retiring directors were re-elected, and W. Southam was again chosen President.

Arrangements are being pushed for the inauguration of the new steamship line along the south shore of Lake Ontario. It is proposed to start the new line July 15, and to run steamers between Lewiston and Alexandria Bay, N.Y., calling at a number of intermediate ports. Capt. M. J. Galvin, F. W. Wheeler, of Buffalo, are the principal promoters of the project.

The Canadian Lake and Ocean Navigation Co. has made two charters for carrying wheat on the opening of navigation, one from Fort William to Montreal at 7c., and one to Kingston at 5½c., insurance to be paid by shipper. The Midland King and Midland Queen, owned by the Midland Navigation Co., have also been chartered for several trips from Fort William to Georgian Bay, at 2¼c.

U.S. engineers appointed by the War Department, and engineers representing the Detroit River Tunnel Co. have held several meetings to arrange all matters in connection with the construction of the tunnel. The Lake Carriers' Association withdrew its opposition, the Tunnel Company agreeing to leave 1,000 ft. of the channel open for navigation while each section of the tunnel was being constructed.

Another break in the eastern embankment of the Trent Valley Canal was reported Jan. 26, and the necessary repairs have been ordered. W. Ross, the engineer appointed to investigate the defects at the lift lock at Peterborough, the construction of the lift lock at Kirkfield, and other matters on the canal, has made a report to the Government. The Minister of Railways and Canals, and the Deputy Minister, inspected the work Jan. 31.

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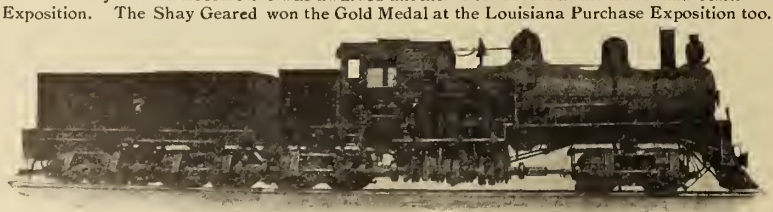

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Reports from the lakes state that an early opening of navigation is looked forward to. As an instance of the openness of the water, the fact that the Crawford Tug Co.'s str. Hodgson made a trip from Wiarton to Lion's Head, 35 miles north, in four hours, on Feb. 5, may be mentioned. On the return journey four inches of ice had to be broken through in Wiarton harbor. On Feb. 1, the tug Mary B. arrived at Port Stanley from Port Burwell, Ont.

Two steamers are under construction on the Georgian Bay for trade on Lake Nepigon. One is a passenger steamer, length, 60 ft.; breadth, 12 ft.; depth, 6 ft.; and the other is a freight steamer, length, 75 ft.; breadth, 15 ft.; depth, 6 ft. 6 in. The frames and the necessary woodwork will be prepared on the Georgian Bay and shipped to Nepigon, where the steamers will be completed. The engines in both cases are under construction at Goderich, Ont.

A company is being formed at Mattawa, Ont., for the purpose of purchasing the plant and business of the Lumsden line of steamers on Lake Temiskaming. The steamers owned are the Meteor, Jubilee and Temiskaming, which are valued at $30,000; the wharves and other property are valued at $18,000. The vessels were run by the late A. Lumsden, and are now being operated by his estate. J. A. Larochelle, of Mattawa, is the principal promoter of the company.

The steamer which the Huntsville, Lake of Bays and Lake Simcoe Navigation Co. is having built for its trade, will be named Algonquin, and will have the following general dimensions:—Length, 127 ft.; breadth, 23 ft. She will be fitted with fore and aft compound engine; cylinders, 14 and 28 in. diameter by 20 in. stroke, calculated to give a speed of 15 miles an hour. She will have large dining-room accommodation, as well as eight staterooms. It is expected she will be running about June 15.

Speaking recently at a dinner to the engineers connected with the Public Works Department, Hon. C. S. Hyman, Minister of Public Works, made special reference to the transportation question. He pointed out that additional facilities would have to be provided so that grain might be carried to Georgian Bay ports, and referred to the projected canal from Georgian Bay to the Ottawa River. The results of the surveys recently made, he hoped, would be such as to enable the Government to complete that great work.

Conmee and Bowman, Port Arthur, Ont., have placed an order on the Georgian Bay for a tug and tow barge. The tug will have the following dimensions: length, 85 ft.; breadth, 21 ft.; depth, 12 ft.; and will be specially built so that she can be utilized for icebreaking purposes. She will be fitted with a Clyde built boiler, 160 lbs. working pressure, and fore and aft compound engines, cylinders 15 and 30 in. diameter, by 24 in. stroke. The tow barge will be 175 ft. long, have a breadth of 40 ft. and a depth of 28 ft.

The steel tow barge under construction on the Georgian Bay, for the Montreal Transportation Co., for its Port Colborne, Ont.-Montreal trade, will have the following general dimensions:—length, 256 ft. over all; 200 ft. keel; beam, 41 ft.; depth, 19 ft. She will be fitted with double bottom for water ballast, steam pumps for shifting water ballast, steam steering gear and all modern improvements. She will have a capacity of 75,000 bush. of grain, and will be ready about June 15: She was designed by H. Calderwood, and is being built under his inspection.

The Muskoka Lakes Navigation and Hotel Co. is having built at Toronto a steel day type excursion steamer for its trade on the Muskoka Lakes, of the following dimensions: length, 152 ft. over all; breadth, 30½ ft. over wales; 28½ ft. moulded; depth, 8 ft. 11 in. moulded. She will be fitted with twin screws, driven by two sets of triple expansion engines, cylinders 10, 16 and 26 in. diameter, by 16 in. stroke; steam being supplied by four Scotch boilers, 7 by 11 ft., at 175 lbs. pressure. A speed of 16 miles an hour will be developed, and the steamer will have accommodation for 700 passengers. She is being built under the inspection of H. Calderwood.

The Midland Dredging and Construction Co., recently incorporated under the Ontario Companies' Act, proposes to engage in a general dredging and contracting business. Its offices are at Midland, Ont.; D. L. White, Midland, is its President, and D. S. Pratt, Secretary-Treasurer. The company is having constructed a modern 5-yard steel dipper dredge, by M. Beatty & Sons, Welland, Ont. A contract has been let to H. Calderwood, naval architect, Toronto, for the construction of two 5-pocket steel dump scows of the following dimensions:—length, 102 ft. over all; beam, 28¼ ft.; depth, 9 ft. They will have a capacity of 300 yards each and will be built on the Georgian Bay.

Application will be made at the current session of the Ontario Legislature for an act incorporating a company for the purpose of constructing, operating and maintaining a system of navigable waterways, with or without portage railways, connecting Georgian Bay with Lake Simcoe and Lake Couchiching, or else Nottawasaga Bay with Lake Simcoe, and from Lake Simcoe to Lake Ontario, either in York or Ontario county; also from Nottawasaga Bay, along the valley of the Nottawasaga River to Lake Ontario, near Humber Bay. The company also asks to have the right to make slack water navigation and such incidental works and structures as may be found requisite to the full and proper utilization of the same. W. Cook, Toronto, is solicitor for the promoters.

At the meeting of the International Water Lines Passenger Association in Toronto, in Jan., a gavel was presented to the retiring chairman, C. E. Markham, which was made from wood from the steamer Independence, which was built in Chicago in 1846, as nearly as can now be told, and in 1848 was hauled over the portage at Sault Ste. Marie in the winter and next season began the navigation of the greatest of the great lakes. Her exact dimensions are not known, but she must have been about 200 ft. long. Her career was a checkered one and ended in disaster. In 1852, while Capt. John Averill, until lately a resident of Chicago, was sailing her, she went on the beach at Eagle Harbor and spent the winter there. In the spring she was released by Capt. Calloran, and that fall again met with misfortune on Chequamegon Point, where Ashland now is. She went ashore on the point in a blinding snowstorm, and again spent the winter on land. She was purchased where she lay by Capt. McKay, father of Capt. George McKay, of Cleveland, and early in the spring of 1854 the Captain set about releasing her. He built a crib out in the lake for his windlass, and Indians from La Pointe filled this with boulders brought from shore in their canoes. With the windlass on the crib and the house—moving jacks pushing against the hull on the shore, Capt. McKay, assisted by one or two heavy seas, finally managed to get the steamer into the lake again, after spending the entire summer at the work. When free she was towed to La Pointe by his crew of Indians in their small boats, and one of the first recollections of Capt. George McKay, the veteran of the U.S. Lake Carriers' Association, is this scene which he witnessed as a boy. After getting the sand out of her hull and machinery at La Pointe, Capt. McKay set sail for Sault Ste. Marie, arriving there in November. Completing his refitting he took on a large cargo of supplies for the copper country and set sail Nov. 22, 1854, on what was to prove the last voyage of the ill-starred craft. When a few miles from Sault Ste. Marie, the boiler of the Independence exploded, killing seven persons and blowing the stern of the vessel which sank on the Laverne Shoals.

The Midland Navigation Co. is having built on the Georgian Bay, a bulk freight steamer to the highest requirements of the Great Lakes Register and Bureau Veritas inspection. Her dimensions are: length, 486 ft. over all; between perpendiculars, 466 ft.; beam, moulded, 55 ft.; depth, moulded, 31 ft. She will be fitted with a cast iron sectional 4-bladed propeller, 14 ft. 6 in. diameter, 16½ ft. pitch, true screw; driven by a vertical triple expansion engine, cylinders 23, 38½ and 63 in. diameter, by 42 in. stroke. Steam will be supplied at 180 lbs. pressure by two Scotch marine boilers, 15½ by 12 ft.; having 318 tubes of 3½ in. outside diameter. The hull will be of steel, fitted with double bottom for water ballast, and the cargo space divided into four watertight compartments by means of steel bulkheads. The engines will be placed as far aft as possible and will be divided from the cargo space by bulkheads. The main deck will be laid at the fore and aft ends only, so as to leave plenty of space for the handling of cargo, etc; the forecastle deck will be forward, and will have a steel house forward which will include steel pilot house and texas; there will be a steel deckhouse on the spar deck, as well as other accommodation for the crew, etc. There will be 14 cargo hatches, and two steel pole masts. In the forecastle there will be the owner's room, four staterooms, bathroom, mates' and watchmen's rooms, and wheelmen's room, etc.; in the spar deck deckhouse there will be accommodation for deck hands, etc; and in the afterhouse will be accommodation for the engineers, a dining-room, galley, pantry, etc. The machinery for cargo handling, etc., includes steam windlass on main deck forward for anchor, with overhead capstan on forecastle deck, and reversible steam capstan aft on spar deck; four double cylinder 8 by 10 winding engines on spar deck; steam and hand steering gear; two horizontal duplex pumps, cylinders 14 x 18 x 18; steam fire pump in cargo hold, and steam fire pump in engine room 8 x 4 x 10. Steel lifeboats are to be provided as required by the Canadian Inspection Act. She will have a capacity for 325,000 bush. of wheat, and when loaded down to 21 ft. draught will have a carrying capacity of about 10,000 tons. She will be the biggest freight carrier in Canada, and one of the biggest on the Great Lakes; the boilers also will be among the largest constructed for any vessel on the Great Lakes. The steamer was designed by and is being built under the inspection of H. Calderwood, naval architect, Toronto.

Manitoba, Alberta, Saskatchewan, Etc.

The question of the improvement of the Red and Saskatchewan rivers, with a view of making them more suitable for navigation purposes, is of increasing importance, and it is understood will be pressed upon the consideration of the Government next session of the Dominion Parliament.

G. Malhoit, resident engineer of the Department of Public Works at Winnipeg, Man., made a general survey of the Winnipeg River during 1905, with a view to its improvement for navigation. He has prepared a report which will be considered by the Department, and the question will probably be brought forward during next session of Parliament. Mr. Malhoit was at Ottawa recently to discuss his report with the Department.

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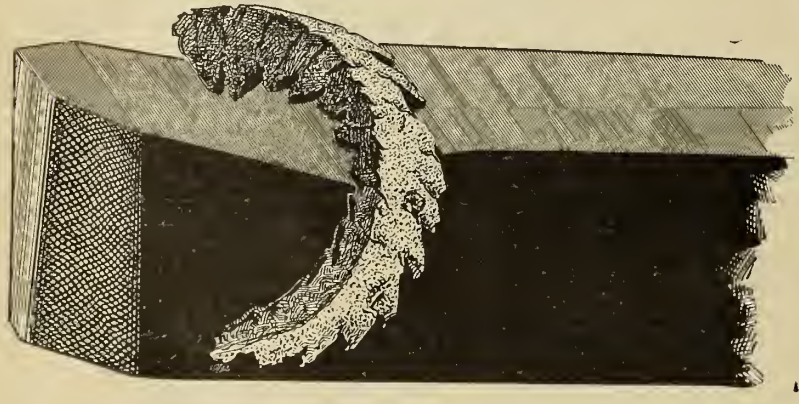

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B.C. and Pacific Coast Marine.

The action for salvage brought by the C.P.R. for services rendered by the str. Queen City to the schr. M. Turner, of San Francisco, has been compromised, $2,594 having been agreed upon as their value.

The Vancouver Shipmasters' Association has elected the following officers for the current year: President, Capt. Wilbur; Vice-Presidents, Capt. Kidd, Capt. Babbington, Capt. Bissett; Secretary, Capt. M. Morrison; Treasurer, Capt. J. R. Newcombe.

Pacific coast reports state that the lights on the U.S. and Canadian shores of the entrance to the Straits of St. Juan de Fuca, near Victoria, are so nearly alike that there is a danger of mistakes occurring. If this is the case a change should be at once made.

A steel screw steamer has been launched at Philadelphia for the Pacific Coast fishery of the New England Fish Co. Her dimensions are: length, 142 ft.; breadth, 24 ft.; draft, 15 ft.; and she will be fitted with triple expansion engines capable of making 13 knots an hour. The new steamer has been named the Manhattan, and is expected to start on her voyage round Cape Horn early in March.

An investigation into the loss of the str. Valencia was opened at Victoria, B.C., Feb. 5, by Capt. Gaudin, Agent of the Department of Marine, assisted by Capt. G. G. Cox, Lloyd's agent, and Capt. Newcombe, Master of the fisheries protection cruiser Kestrel. The str. was a U.S. one, operated by the Pacific Coast Steamship Co., and ran ashore in a fog near Cape Beale, Vancouver Island, Jan. 22, about 100 lives being lost. The object of the inquiry is to ascertain whether the wreck was caused by any inefficiency of the lights maintained by the Dominion Government, or the coast. The loss of the vessel formed the subject of a discussion with the President of the U.S. at Washington on Feb. 7, and as a result the board which recently investigated the burning of the excursion str. General Slocum with the loss of 1,000 lives, has been directed to make an investigation into the Valencia disaster also.

Among the Express Companies.

The ninth annual drive and dinner of the Dominion Ex. Co.'s employes at Montreal took place Feb. 3.

W. S. Stout, President and General Manager Dominion Ex. Co., returned to Toronto, at the end of Jan. from the Pacific coast.

The Canadian Ex. Co. has issued notices to wholesale liquor dealers that it will not accept consignments of liquor for points in Albert County, N.B.

The offices of the American Ex. Co. at Cape Vincent, N.Y., were burned out Feb. 6. Among the parcels destroyed were a number belonging to the Canadian Ex. Co., taken over from Kingston, Ont.

O. E. Ford, heretofore cashier Dominion Ex. Co., Vancouver, B.C., has been appointed the company's agent at Rossland, B.C., succeeding J. H. Young, transferred to Victoria, in place of F. Oliver, resigned.

The Dominion Ex. Co. has opened offices at Bawlf, Daysland, Erskine, Exshaw, Larmour, Nevis, O'Haton, Stettler, Alta.; Cardell, Sask.; Moor Park (formerly Creeford), Man.; Burbridge (formerly Bouchette), Que.

J. H. Young was presented with a travelling bag and outfit by the business men of Rossland, B.C., on leaving the Dominion Ex. Co.'s agency there to take up the duties of agent for the same company at Victoria, B.C.

The Dominion Ex. Co.'s agents are authorized at common points with the Canadian

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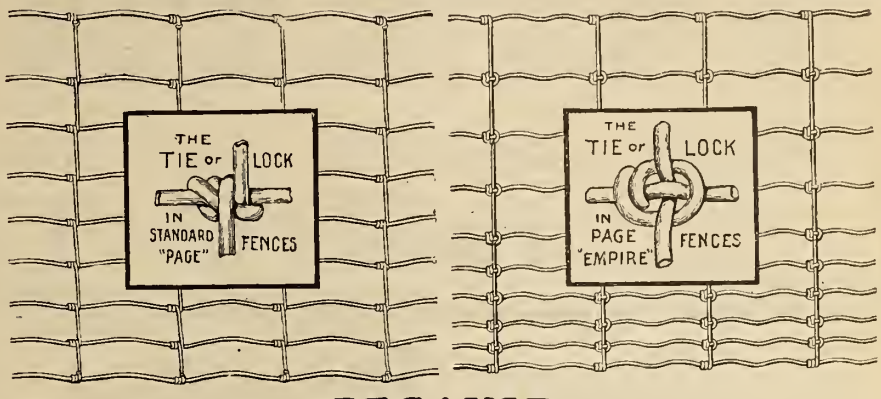

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Every Wire is COILED, not crimped, through its entire length. We are the only firm that can supply a Coiled Woven Fence.

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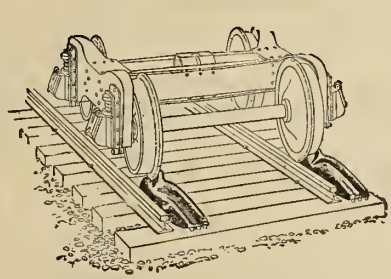

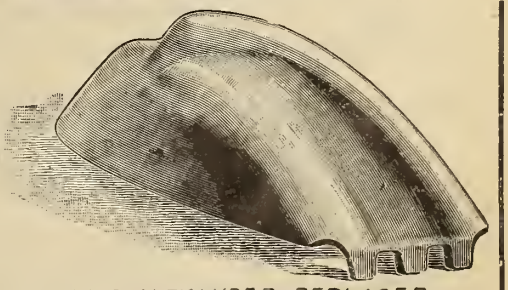

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THE

BELL TELEPHONE CO. OF CANADA

Ex. Co., to waybill shipments for common points of Canadian Ex. Co., with the Maritime Ex. Co., through to distination at one graduate or the lowest through rate.

Statistics recently published show that the Dominion Ex. Co. is the third largest company of its kind on the continent, being exceeded only in point of agencies by the American and Wells-Fargo companies. During the past year, the company increased its business and agencies to such an extent that it passed the United States Ex. Co., which had previously stood third.

The Dominion Ex. Co. announces that its agents at common points with the Canadian Ex. Co., where the American or National companies are not represented, are authorized to waybill through at one graduate or one minimum to Amherstburg, Ont., an exclusive office of the American Ex. Co., on the rate furnished by the Tariff Department, or on the rate of the Canadian Ex. Co. if lower; route via Windsor, Ont., for transfer to American Ex. Co.

Telegraph and Cable Matters.

The C.P.R. Telegraph Department has closed its offices at Headingly and Stockton, Man.

The Newfoundland Post Office has opened a telegraph office in connection with its system at Gaff Topsail.

The G.N.W. Telegraph Co. has opened offices at Alliston Station, Minden, Ont.; Bristol, St. Norbert, Que.

The Marconi Wireless Telegraph Co. has been given a contract by the Reid Newfoundland Co. to equip its str. Bruce with wireless telegraph apparatus.

The list of offices, revised tariff, instructions and rules for 1906, has been issued by the C.P.R. Telegraph Department. It extends to 606 pages against 416 for 1905.

An unnamed company in which Victoria, B.C., men are interested, is reported to have asked the Dominion for a subsidy of $15,000 to cover the installation of six wireless telegraph stations on the Pacific coast.

A number of the cables connecting the West Indian Islands with each other and the mainland were interrupted Feb. 2, the disturbances being mainly to the south. The Halifax-Bermuda-West Indian cable was not interrupted.

The C.P.R. Telegraph Department has completed a new copper wire between Montreal and St. John, N.B., about 482 miles. The work was done by two gangs, one starting at Montreal and the other at St. John, and was completed in 35 days.

The Anglo-American Telegraph Co. has announced that it will receive at its Newfoundland offices messages for Anticosti Island, to be transmitted via the Marconi Wireless Telegraph Co.'s station at Cape Ray, at a charge of 45c. for 10 words, and 3c. for each additional word, address and signature free.

The C.P.R. Telegraph Department has been revising some of its rates in Western Canada. The rate from Lethbridge to Medicine Hat, Alta., is being reduced from 50c. to 25c., the rate now in force between Lethbridge and Calgary and Edmonton, Alta. New rates, it is stated, will also be put in force to points on the Pacific coast and in the State of Montana.

In the action of Moss against the C.P.R. Telegraph Department, Justice Britton of the Ontario Courts found that the plaintiff had not complied with the conditions to be observed in sending a telegram, and therefore could not hold the department responsible for any mistakes that might occur. But in case the suit should be brought before an-

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ROBERT MITCHELL CO.
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MANUFACTURERS OF
RAILWAY AND STREET CAR FITTINGS

JOHN S. METCALF CO.,
Engineers, Grain Elevator Builders,
620 TO 623 THE TEMPLE, CHICAGO, ILL.
A partial list of elevators which have been designed and constructed by us and under our supervision.

Burlington Elevator, St. Louis, Mo.	Capacity	1,300,000 Bushels
Grand Trunk Elevators. No. 2 and No. 3, Portland, Me.	"	2,500,000 "
Export Elevator, Buffalo, N.Y.	"	1,000,000 "
J. R. Booth Elevator, Depot Harbor, Ontario	"	1,000,000 "
Southern Pacific Terminal Co.'s Elevator, Galveston, Texas	"	1,000,000 "
Erie R. R. Transfer & Clipping House, Chicago, Ill	"	100 cars in 10 hrs.
Manchester Ship Canal Co.'s Elevator, Manchester, Eng.	"	1,500,000 "
Burlington Elevator Co., Peoria, Ill.	"	500,000 "
Canada Atlantic Railway Elevator, Coteau Landing, Que.	"	500 000 "
Northern Grain Co., Manitowoc, Wis.	"	1,350,000 "
Union Elevator, East St Louis, Ill	"	1,100,000 "
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MUSHET "Special and" "High-Speed" STEELS
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We are prepared to furnish all material and labor, and turn out to the Railroad a complete job, as we have a number of experienced fence builders always in our service.

Send us your Specifications and we shall be pleased to furnish prices either by mail or otherwise.

Steel and Wood Frame Gates for Railroads at special prices.

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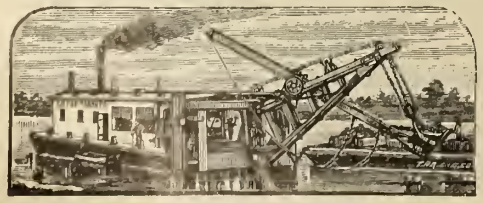

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The Canadian Pacific Railway Company

NOTICE TO SHAREHOLDERS.

A Special General Meeting of the Shareholders of the Company will be held at the principal office of the Company at Montreal, on Monday the 19th day of March next, at noon, pursuant to the Act of the Parliament of Canada, 55-56 Victoria, Chapter 35, entitled "An Act respecting the Canadian Pacific Railway Company," for the purpose of considering and, if approved, of authorizing an increase of the present authorized ordinary capital stock of the Company from one hundred and ten million dollars to one hundred and fifty million dollars, being an increase of forty million dollars, and of determining the amount or amounts and the time or times of the issue or issues of said stock, the purposes to which the proceeds thereof shall be applied and of adopting such resolutions or by-laws as may be deemed necessary in connection therewith in order to enable the Directors of the Company to give effect to the same.

The Common Stock transfer books will be closed in Montreal, New York and London, at 1 p.m. on Saturday, February 24th instant; the Preference Stock Books will be closed in London on the same date.

All books will be reopened on Tuesday, April 3rd, 1906.

By Order of the Board,

CHARLES DRINKWATER,
Secretary.

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HEAD OFFICE, TORONTO.

D. R. WILKIE - - General Manager.
E. HAY - - - - Asst. General Manager.
W. MOFFAT - - - Chief Inspector.

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A general Banking business transacted.

other Court on the point of law, Judge Britton made an appraisement of the damages suffered by the plaintiff, which he placed at $400.

The Marconi Wireless Telegraph Co. of Canada, in replying to some questions asked by shareholders in Vancouver and New Westminster, B.C., has set out in detail the extent of the work done on the Atlantic coast, viz., the construction of 14 stations for the Dominion Government, four for the Newfoundland Government, and the completion and equipment of its high power stations at Glace Bay and Sydney, N.S. At these points there is an increasing volume of commercial business, in addition to the reporting of vessels. "It is natural," says the General Manager, "that in an enterprise of this nature considerable time must elapse before the development can entirely cover the field that is open to it, and in our case, it so happens that the primary demand has been for a large number of stations in the east. It is, however, reasonable to expect that in course of a little time we shall make similar advances on the Pacific coast.

Montreal Telegraph Company.

At the 59th annual meeting in Montreal recently, the balance sheet for the year ended Dec. 31, 1905, was presented as follows:

ASSETS.

Lines in Canada and the U.S.	$1,625,890.00
Cables in Canada and the U.S.	33,487.39
Offices and equipment of offices in Canada and the U.S.	212,500.00
Real estate in Montreal, Ottawa, Quebec and Toronto	279,946.46
	$2,151,823.85
Cash, accounts receivable, bonds and other securities, and real estate (not included in lease to G.N.W.	136,384.66
	$2,288,208.51

LIABILITIES.

Shareholders' capital		$2,000,000.00
Excess in value of property operated by G.N.W. Tel. Co. over shareholders' capital		151,823.85
		$2,151,823.85
Dividend payable Jan. 15, 1906	$40,000.00	
Unclaimed dividends, etc.	911.58	
Contingent fund	95,473.08	
		$136,384.66
		$2,288,208.51

The directors' report said: The dividend guaranteed by the Western Union Telegraph Co., under the terms of the agreement of Aug. 17, 1881, was distributed in the usual manner and on the fixed dates, with a payment of 10c. a share to shareholders of record on Sept. 30 last. The company's property in the foregoing statement, valued at $2,151,823.85, is operated and maintained by the G.N.W.T. Co. of Canada. Its operation and maintenance is also guaranteed by the Western Union Telegraph Co. of New York, under an agreement with this company for 97 years from July 1, 1881. The company continues free from debt or encumbrance of any kind.

The following were elected officers and directors for the current year:—President, H. A. Allan; Vice-President, A. J. Paterson; other directors: W. Wainwright, W. McMaster, W. R. Miller; Secretary and Treasurer, D. Ross-Ross.

General Telephone Matters.

The Bell Telephone Co. is negotiating for a five years' franchise in Sarnia, Ont.

It is understood that the Government of Saskatchewan will ask authority of the Legislature to consider the establishment of a Government owned telephone system in the province.

The telegraph line connecting Tara and Keady, Ont., is owned by Dr. McNally. An arrangement has been completed by which the line has been connected with the Bell Telephone Co.'s line at Tara.

The Bell Telephone Co.'s local manager at St. Thomas, Ont., recently informed the members of the local Board of Trade that the central energy system would be put in at as early a date as possible.

A committee has been formed among the grainmen at Neepawa, Man., to formulate a system of municipal telephones for the Langford and Rosedale districts, to exchange with the Neepawa civic system.

The Bell Telephone Co. will apply next session of the Dominion Parliament for an Act amending the acts under which it is carrying on business throughout the Dominion, and authorizing an increase in its capital.

A. Robinson, manager of the municipal electric light and telephone system, Kenora, Ont., was rendered insensible from an electric shock received while attending to some repair work on the roof of the company's station, recently.

The Chicago Telephone Co. is looking for a location for a factory in Canada. The municipal council of Three Rivers, Que., has passed a resolution offering the company a bonus and exemption from taxation to establish itself there.

The New Brunswick Telephone Co. is asking the St. John City Council for permission to open a number of streets in order to put down conduits for its telephone cables. The company proposes to do away with poles from the streets entirely.

The Southwold and Dunwich Telephone Association has been formed at Iona, Ont., in the same territory that the Wallacetown and Lake Shore Telephone Association is working. The officers are:—President, W. R. Pollard; Vice-President, R. Silcox; other directors, A. Turner, J. Orchard.

A conference, attended by the county and township councillors of Waterloo county was recently held at Berlin, Ont., at which it was decided to send a memorial to the Legislature urging the Government to take into immediate consideration the question of establishing a provincial telephone system.

The Edmonton, Alta., Board of Trade recently had a lengthened discussion on the telephone question. The general feeling is in favor of the inauguration of an automatic system, municipal ownership of local lines, and Government ownership of long distance lines. The matter will be looked into by a delegation which will visit Winnipeg at an early date.

A proposition is under consideration for the conversion into a copper line of the present iron wire connecting Edmundston, N.B., and Riviere du Loup, Que., about 100 miles. When this work is done the New Brunswick Telephone Co. will be enabled to establish a direct connection with Montreal through

The Canadian Pacific Railway Company

Dividends for the Half-year ended 31st December, 1905, have been declared as follows:

On the Preference Stock, two per cent.

On the Common Stock, three per cent.

WARRANTS for the Common Stock dividend will be mailed on or about April 2nd, to shareholders of record at the closing of the books in Montreal, New York and London, respectively.

The Preference Stock dividend will be paid on Monday, 2nd April, to Sharcholders of record at the closing of the books at the Company's London Office, No. 62 Charing Cross, London, S.W.

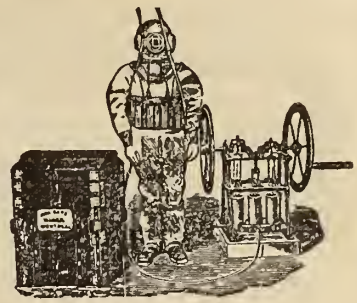
The Common Stock Transfer Books will close in Montreal, New York and London, at one p.m. on Saturday, February 24th. The Preference Stock Books will also close at one p.m. on Saturday, February 24th.

All books will be reopened on Tuesday, April 3rd.

By Order of the Board,

CHARLES DRINKWATER, Secretary.

MONTREAL, 5th February, 1906.



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Automatic non-jarring tabulating. Absolute visible writing.

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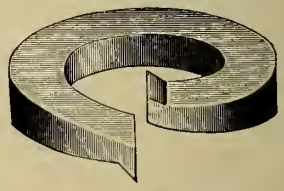
THE POSITIVE LOCK WASHER
Is the BEST Nut LOCK for all purposes



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FIND THAT THE PERE MARQUETTE, FROM PORT HURON OR DETROIT, WILL
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ALL LINES TICKET VIA PERE MARQUETTE TO MICHIGAN POINTS.

FRED. T. LEY & CO., CONTRACTORS

Steam and Electric Railways Built and Financed
Underground Conduit Work a Specialty

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Established 1893

the lines of the Kamarouska Telephone Co. The iron wire is on this company's line.

The Dunwich and Dutton Telephone Association has been formed to construct telephone lines from Dutton to various points throughout the township of Dunwich, Ont. It is expected to start construction at an early date. The officers are: President, W. A. Galbraith; Vice-President, Dr. W. T. Hamilton; Secretary-Treasurer, W. H. Barnum; Trustees: J. B. Crawford, J. H. McIntyre.

The Beauce, Que., Telephone Co., at its annual meeting, Feb. 8, declared a dividend of 8%, and placed $1,000 to reserve fund as the result of its operations for 1905. Following are the officers and directors for the current year: President, A. Pacaud; Vice-President, H. Lacoursiere; other directors: Senator Bolduc, P. F. Renault, P. Angers, J. Cloutier, J. Poirier, H. A. La Rue, J. A. Mailhoux.

The New Brunswick Telephone Co. has decided during the current year to construct a new copper circuit between St. John and Fredericton, N.B., making four lines between these points; a copper line between Canterbury and St. Stephen, 65 miles, and a new copper circuit from Buctouche to Campbellton, about 185 miles. By this latter circuit all the north shore points will be brought into direct communication with St. John.

A bill has been introduced in the British Columbia Legislature for the purpose of controlling the rates charged by telephone companies, and also to give private persons the right to connect with any telephone line. The question of rates to be charged for such connections are to be settled by municipal councils, and in unincorporated places by the Government; and schedules of rates are to be submitted annually for approval by June 1.

The Manitoba Legislature on Jan. 30 appointed a special committee to enquire into the different systems of telephones and into the telephone system of the province in general. Hon. Colin Campbell, Attorney-General, was appointed chairman, and the committee began its sittings Jan. 31. The committee declined to allow telephone companies to appear by counsel and take part in the cross-examination of witnesses. Witnesses representing the automatic telephone system, the Bell Telephone Co., a number of local telephone companies, and some telephone experts have been examined by the committee. The members of the committee have visited Chicago, Ill., to inspect the telephone systems there.

PURCHASING AGENTS' GUIDE.

(*Continued from third page of cover.*)

Dynamo and Electric Castings
American Brake Shoe & F'dry Co....Mahwah, N.J.

Economizers
Babcock & Wilcox (Ltd.).....Montreal.

Electric Car Fenders
The G. B. Meadows Wire, etc., Co.....Toronto.

Electric Car Route Signs
Acton Burrows Limited.....Toronto.

Electric Car Wire Guards
The G. B. Meadows Wire, etc., Co.....Toronto.

Electric Cranes
Canada Foundry Co.....Toronto.
E. F. Dartnell.....Montreal.
Dominion Bridge Co.....Montreal.
W. H. C. Mussen & Co.....Montreal.

Electric Ry. Brake Shoes
American Brake Shoe & F'dry Co...Mahwah, N.J.

Electric Railway Builders
F. T. Ley & Co.....Springfield, Mass.

Electric Ry. Supplies
J. A. Dawson & Co.....Montreal.

Electric Supplies
J. A. Dawson & Co.....Montreal.

Enameled Iron Signs
Acton Burrows Limited.....Toronto.

Engineers, Consulting
W. H. Breithaupt.....Berlin, Ont.

Engineers' Supplies
Canadian Fairbanks Co.....Montreal.
The Canadian Rubber Co. of Montreal.

Engines, Automatic
Robb Engineering Co.....Amherst, N.S.

Engines, Corliss
Robb Engineering Co.....Amherst, N.S.

Engines, Gasoline
Goold, Shapley & Muir Co.....Brantford, Ont.
Ontario Wind Engine and Pump Co.....Toronto.

Engines, Hoisting
M. Beatty & Sons.....Welland, Ont.

Engines, Stationary and Marine
Canada Foundry Co.....Toronto.
H. W. Petrie.....Toronto.
Polson Iron Works.....Toronto.
Robb Engineering Co.....Amherst, N.S.

Engraving
Rolph & Clark (Ltd.).....Toronto.

Engraving (Copper and Steelplate)
Rolph & Clark (Ltd.).....Toronto.

Excavators
Vulcan Iron Works.....Toledo, Ohio.

Express Office Signs
Acton Burrows Limited.....Toronto.

Feedwater Heaters
Canadian Fairbanks Co.....Montreal.
H. W. Petrie.....Toronto.
Robb Engineering Co.....Amherst, N.S.

Fencing
Canada Foundry Co.....Toronto.
McGregor, Banwell Fence Co....Walkerville, Ont.
New Brunswick Wire Fence Co....Moncton, N.B.
Owen Sound Wire Fence Co....Owen Sound, Ont.
Page Wire Fence Co.....Walkerville, Ont.

Fencing and Gates
New Brunswick Wire Fence Co....Moncton, N.B.

Fence Staples
New Brunswick Wire Fence Co....Moncton, N.B.

Fire Brick
W. H. C. Mussen & Co.....Montreal.

Fire Escapes
The G. B. Meadows Wire, etc., Co.....Toronto

Fireproof Building Material
A. B. Ormsby Limited.....Toronto.

Flags
The Hudson's Bay Co.....

Flour
The Hudson's Bay Co.....

Forgings
Canada Car Co.....Montreal.
Crossen Car Mfg. Co.....Cobourg, Ont.
General Railway Signal Co.....Buffalo, N.Y.
Standard Steel Works.....Philadelphia, Pa.

Gasoline Engines
Canadian Fairbanks Co.....Montreal.

Gas Buoys
Willson Gas Buoy Co.....Ottawa.

Gas Pipe (Cast Iron)
Gartshore-Thompson Pipe & F'dry Co., Hamilton.

Gates
Canada Foundry Co.....Toronto.
McGregor, Banwell Fence Co....Walkerville, Ont.
New Brunswick Wire Fence Co....Moncton, N.B.
Owen Sound Wire Fence Co....Owen Sound, Ont.
Page Wire Fence Co.....Walkerville, Ont.

Gears (Heavy)
W. Kennedy & Sons (Ltd.).....Owen Sound, Ont.

Grain Elevators
John S. Metcalfe Co.....Chicago, Ill.

Groceries
The Hudson's Bay Company.....

Hammers
James Smart Mfg. Co.....Brockville, Ont.

Handcars
Crossen Car Mfg. Co.....Cobourg, Ont.
F. H. Hopkins & Co.....Montreal.
W. H. C. Mussen & Co.....Montreal.
Toronto Pressed Steel Co.....Toronto.

Hardware
The Hudson's Bay Company.....

Headlights
N. L. Piper Railway Supply Co.....Toronto

Headlinings
Crossen Car Mfg. Co.....Cobourg, Ont.

Hoppers, Car, Wet or Dry
Duner Co.....Chicago, Ill.

Hose, Air Brake and Steam
The Canadian Rubber Co. of Montreal.

Hose, Fire
The Canadian Rubber Co. of Montreal.

Hose, Suction
The Canadian Rubber Co. of Montreal.

Hydrants
Kerr Engine Co.....Walkerville, Ont.

Illustrations
Acton Burrows Limited.....Toronto.

Inspection Cars
Canada Cycle and Motor Co...Toronto Junc., Ont.

Inspections
R. W. Hunt & Co.....Montreal.
H. Jarvis & Co.....Chicago, Ill.

Instruments, Surveying and Engineering
Eugene Dietzgen Co.....New York.
James Foster.....Toronto.

Interlocking and Signalling
General Railway Signal Co.....Buffalo, N.Y.

Interlocking Signals
Montreal Steel Works.....Montreal.

Iron
A. C. Leslie & Co.....Montreal.

Iron Fencing
The G. B. Meadows Wire, etc., Co.....Toronto.

Iron, Pig
John McDougall & Co.....Montreal.

Iron Signs
Acton Burrows Limited.....Toronto.

Jacks
James Smart Mfg. Co.....Brockville, Ont.

Japans
McCaskill, Dougall & Co.....Montreal.

Journal Bearings
Canada Foundry Co.....Toronto.
Canadian Bronze Co.....Montreal.
Crossen Car Mfg. Co.....Cobourg, Ont.
Kerr Engine Co.....Walkerville, Ont.
Jas. W. Pyke & Co.....Montreal
St. Thomas Brass Co.....St. Thomas, Ont.

Journal Boxes
N. J. Holden Co.....Montreal.

Lager Beer, &c.
E. L. Drewry.....Winnipeg.

Lamps, Incandescent
Canadian Westinghouse Co.....Hamilton, Ont.

Lamps and Lanterns
The Hudson's Bay Company.....
The Hiram L. Piper Co.....Montreal.
N. L. Piper Railway Supply Co.....Toronto.

Lathes
The John Bertram Sons Co.....Dundas, Ont.
H. W. Petrie.....Toronto.

Launches
Polson Iron Works.....Toronto.

Lights, Contractors' and Wrecking
F. H. Hopkins & Co.....Montreal.
W. H. C. Mussen & Co.....Montreal.

Lithographing
Rolph & Clark (Ltd.).....Toronto.

Locomotive Driver Brake Shoe
American Brake Shoe & F'dry Co..Mahwah, N.J.
Canadian Iron and Foundry Co.....Montreal.

Locomotive Lagging and Covering
Canadian Fairbanks Co.....Montreal.

Locomotives (Compressed Air)
Canadian Locomotive Co.....Kingston, Ont.
Locomotive and Machine Co. of Montreal.

Locomotives (Electric)
Canada Foundry Co.....Toronto.
Locomotive and Machine Co. of Montreal.

Locomotives (Logging)
Canadian Locomotive Co.....Kingston, Ont
Lima Locomotive and Machine Co..Lima, Ohio.

Locomotives (Rack)
Canadian Locomotive Co.....Kingston, Ont.
Locomotive and Machine Co. of Montreal.

Locomotives (Steam)
Canada Foundry Co.....Toronto.
Canadian Locomotive Co.....Kingston, Ont.
The W. H. Kelson Co.....Montreal.
Lima Locomotive and Machine Co..Lima, Ohio.
Locomotive and Machine Co. of Montreal

Locomotive Stack Netting
The G. B. Meadows Wire, etc., Co.....Toronto.

Machine Tools
W. Abbott.....Montreal.
Canadian Fairbanks Co.....Montreal.
H. W. Petrie.....Toronto.

Machine Screws, Set Cap and Planer
John Morrow Machine Screw Co.....Ingersoll.

Machinery, Marine
Sheriffs Mfg. Co.....Milwaukee, Wis.

(*Continued on page 179.*)

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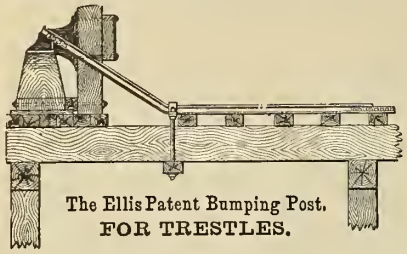
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PURCHASING AGENTS' GUIDE.

(Continued from page 177.)

Machinery Repairs, Marine
Sheriffs Mfg. Co.....Milwaukee, Wis.

Manganese Steel Castings
Montreal Steel Works.....Montreal.

Manhole Frames and Covers
American Brake Shoe & F'dry Co...Mahwah, N.J.
Canadian Iron and Foundry Co..... Montreal.

Maps
Rolph & Clark (Ltd.).....Toronto.

Mats and Matting
The Canadian Rubber Co. of Montreal.

Metals
A. C. Leslie & Co.....Montreal.

Metal Studding
A. B. Ormsby Limited.....Toronto.

Metal Windows
A. B. Ormsby Limited.....Toronto.

Milepost Numbers
Acton Burrows Limited.....Toronto.

Milling Cutters
W. Abbott.....Montreal.

Milling Machines
The John Bertram Sons Co.....Dundas, Ont.
H. W. Petrie.....Toronto.

Mills, Boring and Turning
The John Bertram Sons Co.....Dundas, Ont.
H. W. Petrie.....Toronto.

Mill Tools and Supplies
J. A. Dawson & Co.....Montreal.

Motor Cars
Canada Cycle & Motor Co....Toronto Junc., Ont.

Nickel
The Orford Copper Co.....New York.

Nickel for Nickel Steel
The Orford Copper Co.....New York.

Numbers
Acton Burrows Limited.....Toronto.

Nut Locks
Jones Positive Nut Lock Co.....Chicago, Ill.
Positive Lock Washer Co.....Newark, N.J.

Nuts, Cold Pressed
John Morrow Machine Screw Co.....Ingersoll.

Nuts, Square and Hexagon
Canada Foundry Co.....Toronto.
Montreal Rolling Mills Co.....Montreal.
Toronto Bolt and Forging Co.....Toronto.

Oakum
The Hudson's Bay Company.....
McKenzie & Co.....Montreal.

Office Desks
Canadian Office & SchoolFurnitureCo.,Preston,Ont.

Office Fittings
Canadian Office & SchoolFurnitureCo..Preston.Ont.

Office Railings
The G. B. Meadows Wire, etc., Co.....Toronto.

Office Signs
Acton Burrows Limited.....Toronto.

Oils
Galena Signal Oil Co., Franklin, Pa., and Toronto.

Packing
The N. L. Piper Railway Supply Co.....Toronto.

Packing, High Pressure Sheet
The Canadian Rubber Co. of Montreal.

Packing, Piston
The Canadian Rubber Co. of Montreal

Paints, Dampresisting
E. F. Dartnell.....Montreal.

Passenger Cars
American Palace Car Co..New York and Toronto.

Pinch Bars
The N. L. Piper Railway Supply Co.....Toronto.

Pipe and Pipe Coverings
W. C. Baker.....New York.

Pipe Covering
Canadian Fairbanks Co.....Montreal.
Mica Boiler Covering Co.....Montreal.

Piston Rods
B. M. Jones & Co., Inc....Boston and New York.

Planers
The John Bertram Sons Co.....Dundas, Ont.
H. W. Petrie.....Toronto

Ploughs, Contractors'
W. H. C. Mussen & Co.....Montreal.
Toronto Pressed Steel Co.....Toronto.

Pneumatic Tools
N. J. Holden Co.....Montreal.

Porter
E. L. Drewry.....Winnipeg.

Portable Boilers
Babcock & Wilcox (Ltd.).....Montreal.
Canada Foundry Co.....Toronto.
Robb Engineering Co.....Amherst, N.S.

Printing
The Hunter, Rose Co.....Toronto.
The Mail Job Printing Company.....Toronto.

Propeller Wheels
W. Kennedy & Sons (Ltd.).....Owen Sound, Ont.
Sheriffs Manufacturing Co..... Milwaukee, Wis.

Pumps
Canadian Fairbanks Co.....Montreal.
Canada Foundry Co.....Toronto.
Goold, Shapley & Muir Co.....Brantford, Ont.
James Smart Mfg. Co.....Brockville, Ont.

Pumps (Centrifugal)
M. Beatty & Sons.....Welland, Ont

Punching and Shearing Machines
The John Bertram Sons Co.....Dundas. Ont.

Rail Benders, Roller
F. H. Hopkins & Co.....Montreal.
Montreal Steel Works.....Montreal.

Rails (new)
Drummond, McCall & Co.....Montreal.
F. H. Hopkins & Co.....Montreal.
J. J. Gartshore.....Toronto.

Rails (for relaying)
F. H. Hopkins & Co.....Montreal.
J. J. Gartshore.....Toronto.
T. A. Morrison & Co.....Montreal.
W. H. C. Mussen & Co.....Montreal.
Jas. W. Pyke & Co.....Montreal.

Railway Bridges
Hamilton Bridge Works.....Hamilton, Ont.

Railway Interlocking
General Railway Signal Co .....Buffalo, N.Y.

Rail Joints
N. J. Holden Co.....Montreal.

Railway Pile Drivers
F. H. Hopkins & Co .....Montreal.
W. H. C. Mussen & Co.....Montreal.

Railway Signalling
General Railway Signal Co.....Buffalo, N.Y.

Railway Spikes
F. H. Hopkins & Co.....Montreal.

Railway Supplies
J. A. Dawson & Co.....Montreal.
Canadian Fairbanks Co.....Montreal.
The W. H. Kelson Co.... .....Montreal.
The Hiram L. Piper Co.....Montreal.
The N. L. Piper Railway Supply Co.....Toronto.

Reamers
W. Abbott.....Montreal.

Refrigerators
Geo. R. Prowse.....Montreal.

Rivets, Boiler, Bridge and Structural
Canada Foundry Co.....Toronto.
Montreal Rolling Mills Co.....Montreal.
Toronto Bolt and Forging Co.....Toronto.

Rolled Wheels
Standard Steel Works.....Philadelphia, Pa.

Rolls, Plate Bending
The John Bertram Sons Co.....Dundas, Ont.

Roofers
A. B. Ormsby Limited.....Toronto.

Roof Trusses
Canada Foundry Co.....Toronto.
Canadian Bridge Co.....Walkerville, Ont.
Dominion Bridge Co.....Montreal.
Hamilton Bridge Works.....Hamilton, Ont.

Rope
F. H. Hopkins & Co.....Montreal.
The Hudson's Bay Co.....
J. Leckie Limited.....Toronto.

Rotary Snow Ploughs
Crossen Car Mfg. Co.....Cobourg, Ont.

Rubber Tiling, Interlocking
The Canadian Rubber Co. of Montreal.

Saw Steel
Montreal Steel Works.....Montreal.

Scrapers (Wheel and Drag)
F. H. Hopkins & Co.....Montreal.
W. H. C. Mussen & Co.....Montreal.
Toronto Pressed Steel Co.....Toronto.

Screws, Coach and Lag
Montreal Rolling Mills Co.....Montreal.
Toronto Bolt and Forging Co.....Toronto.

Semaphore Arms
Acton Burrows Limited.....Toronto.

Semaphores
The N. L. Piper Railway Supply Co.....Toronto.

Sewer Pipe (Cast Iron)
Gartshore-Thompson Pipe & F'dry Co..Hamilton.

Shaking Grates
Babcock & Wilcox (Ltd.).....Montreal.

Shaping Machines
The John Bertram Sons Co.....Dundas, Ont.

Ship Lamps
The Hiram L. Piper Co.....Montreal.
The N. L. Piper Railway Supply Co.....Toronto.

Ships
Polson Iron Works.....Toronto

Shovels
The Hudson's Bay Co.....

Side Bearings
Simplex Railway Appliance Co.....Montreal

Signal House Numbers
Acton Burrows Limited.....Toronto.

Signals
General Railway Signal Co.....Buffalo, N.Y.
The Hiram L. Piper Co.....Montreal.
N. L. Piper Railway Supply Co.....Toronto.

Signs
Acton Burrows Limited.....Toronto.

Skylights
A. B. Ormsby Limited.....Toronto.

Slack Adjusters
Chicago Railway Equipment Co.....Chicago, Ill

Sledges
James Smart Mfg. Co.....Brockville, Ont.

Slotting Machines
The John Bertram Sons Co.....Dundas, Ont.

Smoke Jacks
Paul Dickinson.....Chicago, Ill.

Snow Ploughs
Crossen Mfg. Co.....Cobourg, Ont
Rhodes, Curry & Co.....Amherst, N.S.

Specialties in Brass and Iron Wire
The G. B. Meadows, Wire, etc., Co.....Toronto.

Speedicut High Speed Steel
Montreal Steel Works.....Montreal.

Spikes, Railway, Ship or Pressed
Montreal Rolling Mills Co.....Montreal.
Toronto Bolt and Forging Co.....Toronto.

Spreader Cars
F. H. Hopkins & Co.....Montreal.

Springs
F. H. Hopkins & Co.....Montreal.
Montreal Steel Works.....Montreal.
Standard Steel Works.....Philadelphia, Pa.

Station and Tower Heaters
W. C. Baker.....New York.

Stationery
Rolph & Clark (Ltd.).....Toronto.

Station Name Signs
Acton Burrows Limited.....Toronto.

Station Seats
James Smart Mfg. Co.....Brockville, Ont.

Staybolt Iron
B. M. Jones & Co., Inc....Boston and New York.

Steam Attachments for Car Heating
W. C. Baker.....New York.

Steam Couplers
Safety Car Heating and Lighting Co....New York.

Steam Hammers
The John Bertram Sons Co.....Dundas, Ont.

Steam Shovels
M. Beatty & Sons.....Welland, Ont.
F. H. Hopkins & Co.....Montreal.
W. H. C. Mussen & Co.....Montreal.
Vulcan Iron Works .....Toledo, Ohio.

Steamship Supplies
The W. H. Kelson Co.....Montreal.

Steamships
Polson Iron Works.....Toronto.

Steamship Signs
Acton Burrows Limited.....Toronto.

Steam Steering Engines for Tugs
Sheriffs Mfg. Co.....Milwaukee, Wis.

Steel
W. Abbott.....Montreal.
Wm. Jessop & Sons.....Sheffield, Eng.
B. M. Jones & Co., Inc....Boston and New York.
A. C. Leslie & Co.....Montreal.

Steel Buildings
Canada Foundry Co.....Toronto.
Canadian Bridge Co.....Walkerville, Ont.
Dominion Bridge Co.....Montreal.
Hamilton Bridge Works.....Hamilton, Ont.

Steel for Springs
James Hutton & Co.....Montreal.

Steel, Nickel for Nickel
The Orford Copper Co.....New York.

Steel Plate
Jas. W. Pyke & Co.....Montreal.

Steel Rolling Doors
W. H. C. Mussen & Co.....Montreal.
A. B. Ormsby Limited.....Toronto.

Steel Tyres
James Hutton & Co.....Montreal.
Jas. W. Pyke & Co.....Montreal.

Stokers, Mechanical
Babcock & Wilcox (Ltd.).....Montreal.

Stoves
James Smart Mfg. Co.....Brockville, Ont.

Structural Metal Work
Canada Foundry Co.....Toronto.
Canadian Bridge Co.....Walkerville, Ont.
Dominion Bridge Co.....Montreal.
Hamilton Bridge Works.....Hamilton, Ont.
Locomotive and Machine Co. of Montreal.
Jas. W. Pyke & Co.....Montreal.

Superheaters
Babcock & Wilcox (Ltd.).....Montreal.

Switches
Montreal Steel Works.....Montreal.

Switch Lamps
The N. L. Piper Railway Supply Co.....Toronto.

Switch Ropes
The B. Greening Co.....Hamilton, Ont
F. H. Hopkins & Co.....Montreal.

Switch Targets
Acton Burrows Limited.....Toronto.

Tanks and Tank Fixtures
Canadian Fairbanks Co.....Montreal.
Canada Foundry Co.....Toronto.
Goold, Shapley & Muir Co.....Brantford, Ont.
Ontario Wind Engine and Pump Co.....Toronto.

Telegraph and Telephone Office Signs
Acton Burrows Limited.....Toronto.

Tents
J. Leckie Limited.....Toronto

Terra Cotta Fireproofing
E. F. Dartnell.....Montreal.

Tests
R. W. Hunt & Co.....Montreal.
H. Jarvis & Co.....Chicago, Ill.

Ticket Wickets
The G. B. Meadows Wire, etc., Co.....Toronto.

Tie Plates
B. J. Coghlin & Co.....Montreal.
Montreal Rolling Mills Co.....Montreal.

Tiling, Glass
E. F. Dartnell.....Montreal.

Time Table Racks
The G. B. Meadows Wire, etc., Co.....Toronto.

Tires
Standard Steel Works.....Philadelphia, Pa.

Tools
James Smart Mfg. Co.....Brockville, Ont.

Tool Steel
W. Jessop & Sons.....Sheffield, Eng.
B. M. Jones & Co., Inc ...Boston and New York.
A. B Leslie & Co.....Montreal.
Montreal Steel Works.....Montreal.

Towers
Goold, Shapley & Muir Co.....Brantford Ont.

Track Jacks
Canadian Fairbanks Co.....Montreal.
F. H. Hopkins & Co.....Montreal.
Montreal Steel Works.....Montreal.
W. H. C. Mussen & Co.....Montreal.
A. O. Norton.....Coaticook, Que.

Trackiaying Lorries
Crossen Car Mfg. Co.....Cobourg, Ont.
F. H. Hopkins & Co.....Montreal.

Trackiaying Machinery
D. F. Holman Ry. Tracklayer Co.....Chicago, Ill.

Track Tools
B. J. Coghlin & Co.....Montreal.
N. J. Holden Co.....Montreal.
F. H. Hopkins & Co.....Montreal.
Montreal Steel Works.....Montreal.
W. H. C. Mussen & Co.....Montreal.

Tramway Equipment
J. J. Gartshore.....Toronto.

Trucks
James Smart Mfg. Co.....Brockville, Ont.

Trucks (Electric Car)
Canada Foundry Co.....Toronto.
Montreal Steel Works.....Montreal.

Trucks (Railroad and Warehouse)
Canadian Fairbanks Co.....Montreal.
Toronto Pressed Steel Co.....Toronto.

Turbine Waterwheels
W. Kennedy & Sons (Ltd.).... Owen Sound, Ont.

Turnbuckles
Montreal Steel Works.....Montreal.

Turntables
Canada Foundry Co.....Toronto.
Canadian Bridge Co.....Walkerville. Ont.
Dominion Bridge Co.....Montreal.
Hamilton Bridge Works.....Hamilton, Ont.

Valves, Brass Gate
Kerr Engine Co.....Walkerville, Ont.

Valves, Brass Globe
Kerr Engine Co.....Walkerville Ont.

Valves, Iron and Brass
Canada Foundry Co.....Toronto.
Canadian Fairbanks Co.....Montreal.

Valves, Iron Gate
Kerr Engine Co.....Walkerville, Ont

Valves, Rubber
The Canadian Rubber Co. of Montreal.

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McCaskill, Dougall & Co.....Montreal.

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Polson Iron Works.....Toronto

Washers
Montreal Rolling Mills Co.....Montreal.

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B. J. Coghlin & Co.....Montreal
McKenzie & Co.....Montreal.
N. L. Piper Railway Supply Co.....Toronto.

Water Filters
Geo. R. Prowse.....Montreal.

Water Pipe (Cast Iron)
Gartshore-Thompson Pipe & F'dry Co. Hamilton.

Water Softeners
Babcock & Wilcox (Ltd.).....Montreal.

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F. H. Hopkins & Co.....Montreal.
Toronto Pressed Steel Co.....Toronto.

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Canada Car Co.....Montreal.
Canadian Iron and Foundry Co.....Montreal.
John McDougall & Co.....Montreal.
Jas. W. Pyke & Co.....Montreal.
Rhodes, Curry & Co.....Amherst, N.S.
Standard Steel Works.....Philadelphia, Pa.

Wheels, Locomotive
Canadian Iron and Foundry Co.....Montreal.
John McDougall & Co.....Montreal.

Wheels, rolled, solid forged
Standard Steel Works.....Philadelphia, Pa.

Wheels, steel tired
Standard Steel Works.....Philadelphia, Pa.

Windmills
Canadian Fairbanks Co.....Montreal.
Ontario Wind Engine and Pump Co.....Toronto.

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Dominion Wire Rope Co.....Montreal.
The B. Greening Co.....Hamilton, Ont.
A. C. Leslie & Co.....Montreal.
W. H. C. Mussen & Co.....Montreal.
The Wire and Cable Co.....Montreal.

Wire Cloth
The B. Greening Co.....Hamilton, Ont.

Wire, Copper
E. F. Phillips Electrical Works, Ltd.....Montreal
The Wire and Cable Co.....Montreal.

Wire, Electric
Canadian General Electric Co.....Toronto.
E. F. Phillips Electrical Works, Ltd....Montreal.
The Wire and Cable Co.....Montreal.

Wire, Insulated Copper
Canadian General Electric Co.....Toronto.
E. F. Phillips Electrical Works, Ltd....Montreal.
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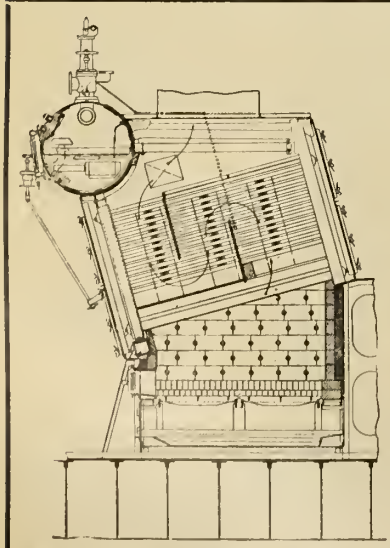
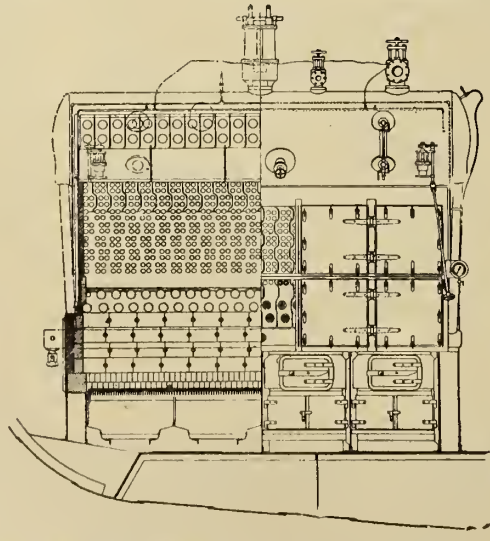
Polson Iron Works.....Toronto





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See Alphabetical Index to Advertisements on page 211.

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TORONTO, CANADA, APRIL, 1906,

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DETROIT RIVER TUNNEL.

The plans for the tunnel under the Detroit River, between Detroit, Mich., and Windsor, Ont., to be constructed by the Michigan Central Rd., which operates the Canada Southern Ry., have been completed.

The length of this tunnel, including approaches, will approximate 12,800 ft., or 2.42 miles. The subaqueous portion of the tunnel will be 2,625 ft. long. The other portions are to be as follows:—Easterly open cut, 3,400 ft.; easterly approach tunnel, 3,100 ft.; westerly open cut, 1,540 ft.; westerly approach tunnel, 2,135 ft. The bids for this work were based upon sectional letting, the two open and two tunnel approaches mentioned in the foregoing constituting sections 1, 2, 3 and 4, in the order above named; the subaqueous tunnel constituting section 5, the Windsor shaft section 6, and the Detroit shaft section 7.

The location of the river portion of the tunnel is such as to be substantially tangenital to the curve upon which trains enter the station on the Detroit side and to the curve by which trains now turn toward the ferry slip, on the Canadian side. Such curvature as is necessary is located in the approach tunnels on each side, as shown in the general location plan. The summit on the Canadian side is at the western extremity of the new Windsor yards, as on the Detroit side the approach ends in the Detroit yards. On the Windsor side it is proposed to erect a passenger station a short distance east of the summit, and the plans show a suggested connection with the C.P.R. at this point. A connection with the Wabash-G.T.R. line is suggested at Walkerville Jct., from which point also freight cars of the Pere Marquette are taken to Detroit by the C.P.R. The location appears to be the best possible, taking into consideration the various interests that will or may be served.

The feature of engineering difficulty is, of course, the submerged section of the tunnel. For the construction of this main section five plans are presented, to the bidders. For the purpose of reducing hazard, cost, time of construction, length of tunnel and lift of traffic tonnage, and also to widen the field of bidders, the tunnel company offers three designs which dispense with the necessity of using shields for the construction of the subaqueous portion. Design "A" was evolved by W. J. Wilgus, Vice-President of the New York Central, and at the head of the advisory board of engineers, of which H. A. Carson and W. S. Kinnear are the other members. It may be briefly described as a method by which the previous material underlying the river may be replaced by a watertight material of concrete, placed under water, and through which, without the use of shields, the inner tubes or tunnel proper may be constructed, so as to secure watertightness and continuity of strength, with an absence of high air pressures. This method also dispenses with the use of cofferdams. The progressive stages of this design are:

(a) The dredging of a trench.

(b) The depositing in the bottom of this trench so as to form a barrier between the underlying clay and sand and the superimposed concrete, of "two men" stone to the depth of 18 inches; that is, durable, sound stone, ranging in size from quarry spawls to a maximum size that can be handled by two men.

THE HON. L. P. BRODEUR, M.P.
Minister of Marine and Fisheries

(c) The construction of temporary platforms in accordance with the permits of the United States and Canadian governments, upon which the contractor's machinery, including mixers, etc., may be placed, these platforms to move progressively across the river as the dredging and other work permit.

(d) Depositing of concrete by the Tremie bucket or other process approved by the engineer for a depth of approximately 2 ft.

(e) The placing of saddles, with the aid of blocking and wedges, upon this bed of concrete, upon which forms can be laid. As an alternative method it is suggested that piling can be driven after the trench is excavated, and the piling cut off at a proper height to receive the saddles, so as to dispense with the use of blocking and wedges.

(f) The construction, on shore, of forms consisting of timber and steel in convenient lengths of 50 to 500 ft., to be coupled together in pairs or otherwise, to be floated into position and gradually sunk until they rest on the saddles.

(g) Placing concrete under, around, between and on top of the forms by the bag, Tremie or bucket process, so as entirely to encase the forms. It is optional with the contractor to join adjacent forms under water in such a manner as to secure watertight connections, or to leave an open space between them, to be filled with concrete, to act as a bulkhead, separating the adjacent forms, and to be cut out after the water has been expelled.

(h) The pumping of the water from the first section after the concrete has had an opportunity thoroughly to set. If the leakage is found to be excessive, the procedure is to use air of sufficient pressure to enable the waterproofing to be perfected and the inner tube or tunnel to be properly constructed.

(i) Should the contractor elect to adopt rolled steel for the forms, they would be constructed with watertight joints in such a manner, that left in the work, they will act as waterproofing to prevent the percolation of water against the exterior of the inner tubes of the tunnel proper. Should the contractor elect to use wooden forms, waterproofing may be placed on the exterior of the forms before they are sunk into position, so that when the forms are removed the waterproofing will remain in place. This method would require the use of air pressure to prevent hydrostatic pressure from distorting the waterproofing.

(j) The construction of the inner tubes of the tunnel proper, after measures have been taken to make all sections thoroughly watertight.

DESIGN "B."

The second design offered by the company, which does not require the use of shields, was proposed by H. A. Carson, of the advisory board of engineers. It is a method by which the inner tubes of the tunnel proper are first built in floats or on dry land, floated and sunk into position on a foundation like that described for the first plan, and joined together by a suitable method, giving continuity of construction and watertightness. In following

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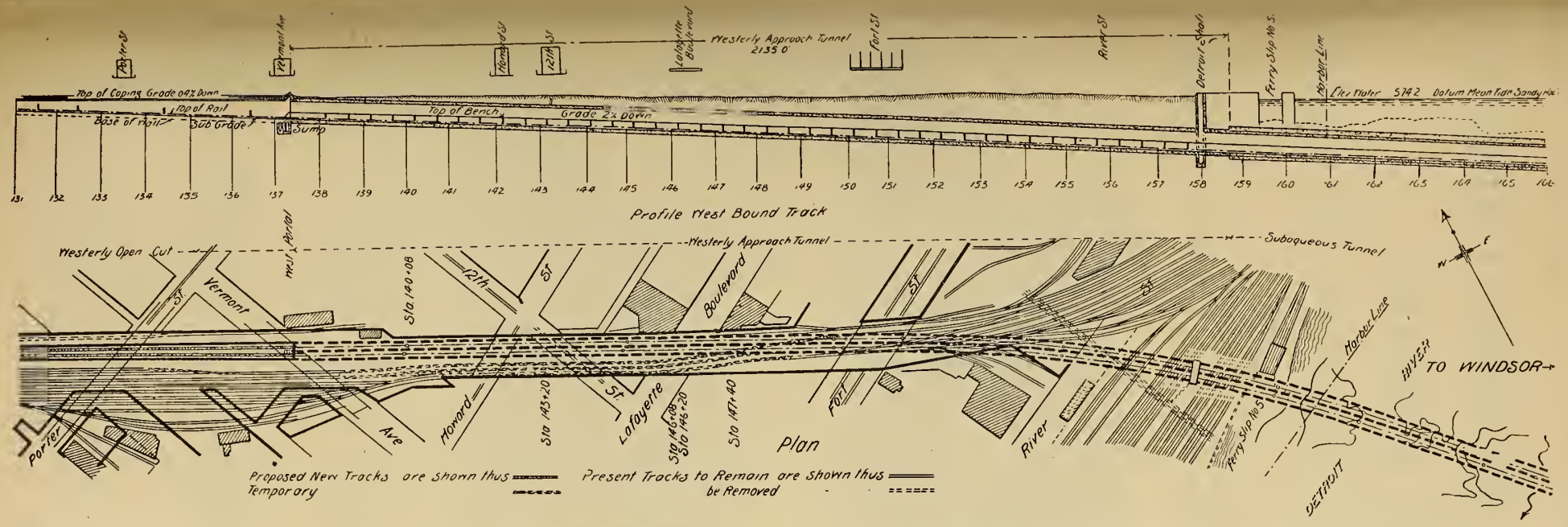
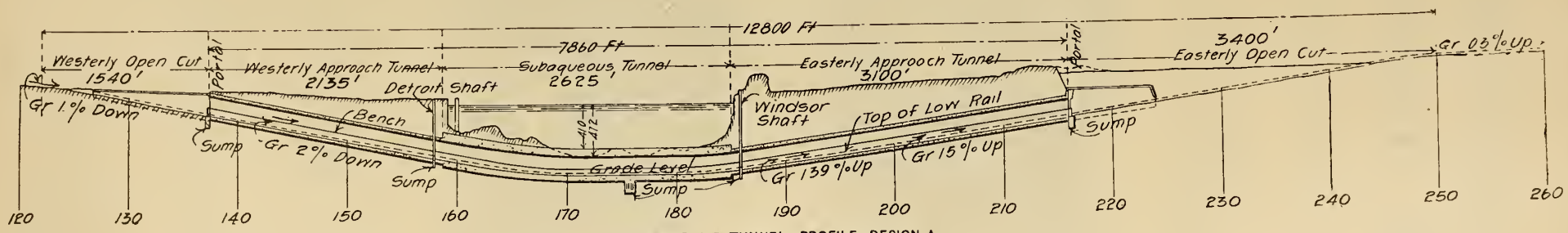
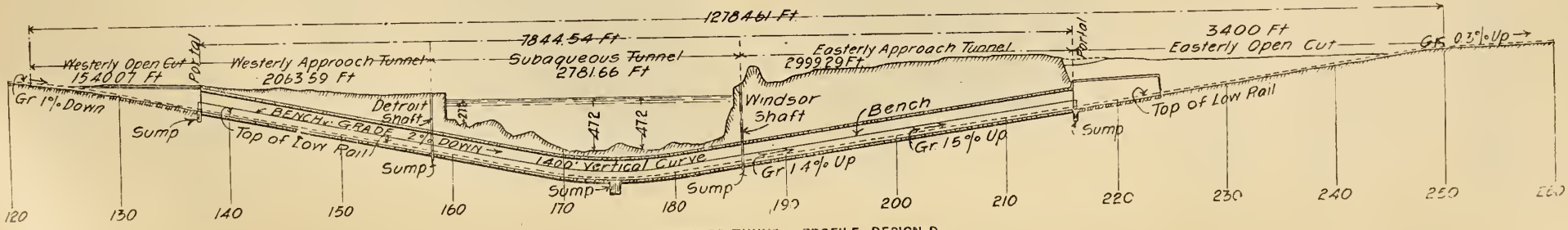


DETROIT RIVER TUNNEL—PROFILE AND PLAN OF WESTERLY APPROACH



DETROIT RIVER TUNNEL—PROFILE, DESIGN A.



DETROIT RIVER TUNNEL—PROFILE, DESIGN D.

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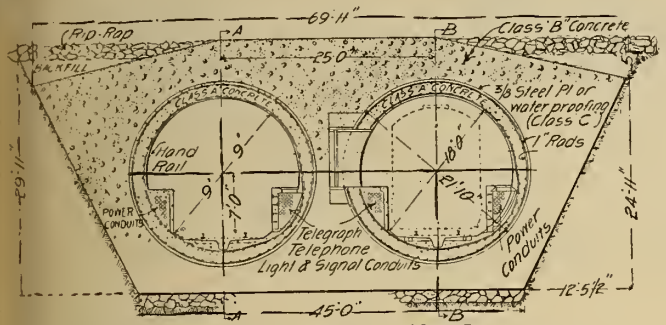
DETROIT RIVER TUNNEL—PLAN SHOWING CONNECTING LINES.

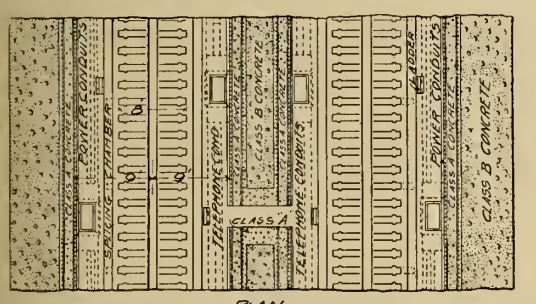
this method great pains would of necessity be taken in joining the sections, so that the joint will not be an element of weakness in the structure, but will be fully as strong as any portion of it. These tubes would then be encased in concrete and protected by backfilling and by riprap.

Design "C" is practically the same as design "A," except that a certain style of steel form and arrangement of reinforcement are prescribed.

Design "D" gives the bidders the option of selecting the well-known shield method of construction. It is pointed out, however, that the necessity of retaining the summits of the tunnel gradients as estimated causes a location of the top of the tunnel for the subaqueous section so close to the river bed as to require artificial filling in order to hold air, the use of which is necessitated by the shield method. Contractors who choose this method must therefore be under the necessity of estimating for the placing of temporary blankets or masses of clay on top of the location of the tunnel, so as to give the necessary thickness between the top of the shield and the water to prevent or reduce the escape of compressed air.

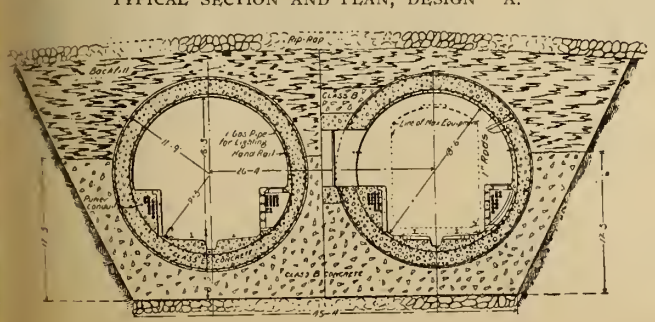


TYPICAL SECTION OF TUNNEL



PLAN

TYPICAL SECTION AND PLAN, DESIGN "A."



TYPICAL SECTION, DESIGN "B."

CONTRACTOR'S ALTERNATIVE METHOD.

Design "C," before mentioned, gives the contractor the option of submitting supplemental specifications and plans illustrating the type of construction upon which he would prefer to bid, provided that the established gradients on the easterly and westerly approaches shall be the same as the company's plans, namely, 2% equated for curvature on the westerly approach, and 1½% equated for curvature on the easterly approach. It is further provided that the depth from the surface of the Detroit River to the outer clearance line of the tunnel construction shall not be less than 41 ft. where the depth of water now equals or exceeds that distance. The tunnel company express a strong preference for the fixing of the summits of the easterly and westerly gradients at the points shown upon the company's plans, because the established points are based upon convenience to the track and yard layouts adjacent.

GENERAL DESCRIPTION.

The maximum depth of the river at the proposed site of the tunnel is about 45 ft., and it is provided in the specifications, as mentioned elsewhere, that the clearance line of the tube structure shall not be less than 41 ft. below the surface where the depth of water now equals or exceeds that amount. The maximum velocity of current at the time measurements were taken (Aug. 28 to Sept. 5, 1905), was 3.40 ft. per second, and at the bed of the river 1.17 ft. per second.

The soil to be excavated consists principally of blue clay, with greater or less admixtures of gravel and sand In the borings taken on each side of the tunnel site, at intervals of 100 ft. throughout the entire length of subaqueous and approach tunnels, hard pan was struck at about 35 feet below the lowest point in the bed of the river. In case of the use of piling as an additional support for the bottom of the tunnel it is required that piles be driven to refusal.

As shown by the accompanying engravings of typical sections of the tunnel, it is provided that the interior diameter of the tube shall be 18 ft., giving a height above top of rail of 16 ft. Power conduits will be located on the outer side of the tube interior, and telegraph, telephone, light and signal conduits upon the inner side with a clearance of 11 ft. 6 in. between. In all of the various possible designs submitted for the consideration of contractors provision is made for the liberal use of concrete. Design "A" provides for filling the tunnel trench to a depth of 5 feet with Class B concrete above the shell of the tunnel tube, which is itself of Class A concrete, 2 ft. in thickness, reinforced with 1-in. steel longitudinal rods, spaced 14 in. centre to centre, and inner and outer circumferential rods of the same size, spaced 6 in. centre to centre. In the main features of construction the other designs submitted, with the exception of the shield method, do not differ essentially. Design "B" provides for a filling of concrete up to only a short distance above the centre line of he tubes, the balance being backfilling, and a protection of riprap, while Design "C" provides for outer and inner shells of ⅜-in. steel, the outer shell being supported by rings of 10-in. I-beams of 30-pound section, spaced 4 ft. centre to centre.

Design "D" provides for a tube, built up of cast iron rings composed of segmental sections 2 ft. 6 in. in width and 6 ft. 3.1414 in. in length on the outer face, with flanges 11 in. in width, and 1½ in. thick on the inner edge, and two intermediate brackets of the same thickness, supporting the longitudinal flanges of each section. Each section is tapped for a 1¼ in. pipe for grouting.

The specifications for the tunnel structure indicate that much attention is to be given to the quality of Portland cement used, to its mixing and the method of application, in order to insure the greatest degree of strength and permanency.

It is the purpose of the tunnel company to secure structures the interiors of which shall be permanently free from moisture or discoloration due to the percolation of water, oils or other liquids from outside sources, by use of a continuous, flexible waterproof sheet, surrounding the exterior of the structure. Coal tar of the grade known as "straight run coal

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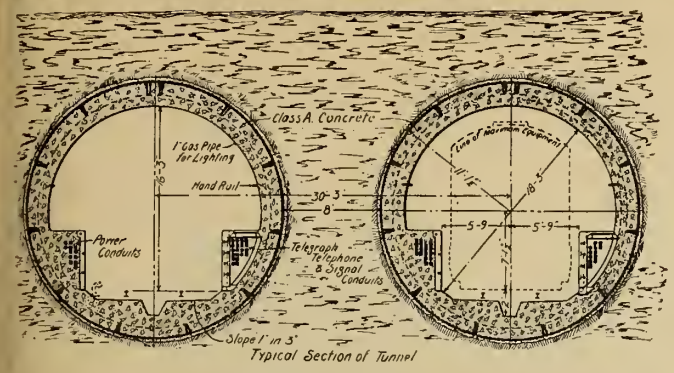
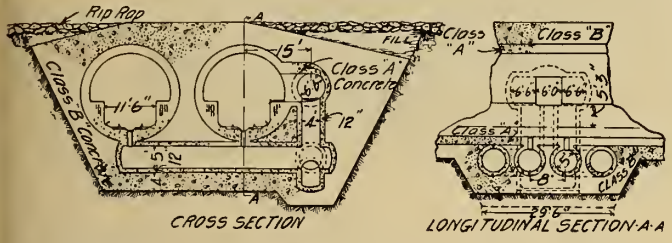
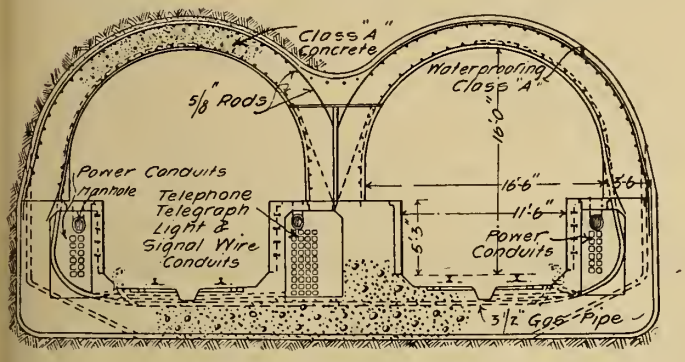


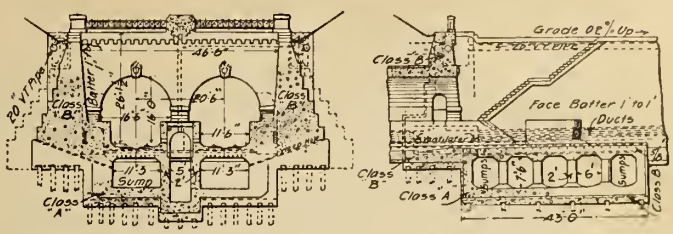
DETROIT RIVER TUNNEL—TYPICAL SECTION, DESIGN "D."



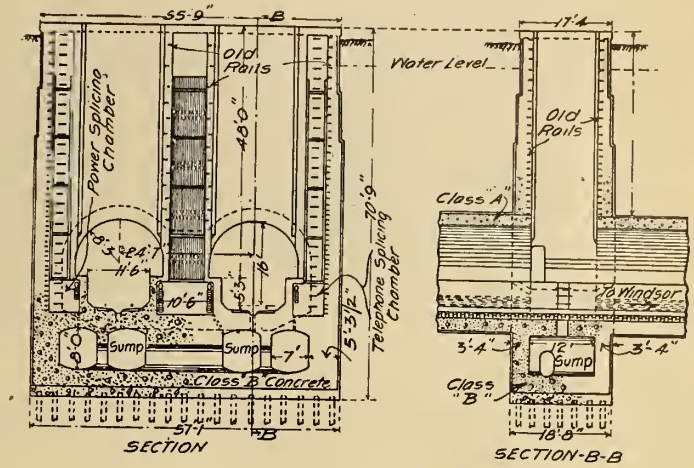
DETROIT RIVER TUNNEL—SUMP UNDER SUBAQUEOUS SECTION.



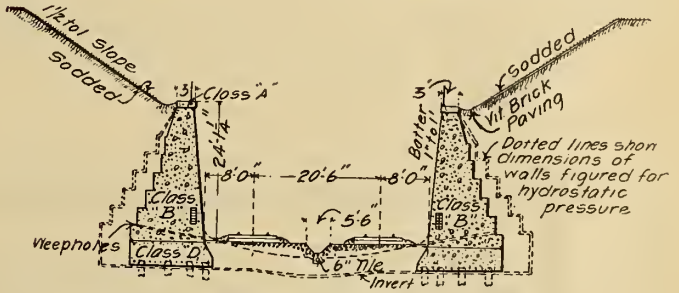
DETROIT RIVER TUNNEL—SOUTH WESTERLY APPROACH.



DETROIT RIVER NUNNEL—WINDSOR PORTAL.



DETROIT RIVER TUNNEL—DETROIT SHAFT.



DETROIT RIVER TUNNEL—RETAINING WALL, EASTERLY APPROACH.

tar pitch" will be used. Felt must be dipped in pitch and weigh not less than 15 lbs. to each 100 square ft. The Class "A" waterproofing will consist of three layers of felt and four layers of coal tar pitch in alternation, each strip or piece of felt to be laid so as to lap well over the previously laid strip.

The Detroit River Tunnel Co. has already completed the excavation of a large portion of the Windsor shaft, and will complete in a similar manner the excavation of the Detroit shaft. This work will be turned over to the contractor, who will complete the excavation and assume maintenance of the temporary work that has been placed.

Answering questions that may arise as to what obstruction to navigation would be occasioned by the trench method of construction proposed, by the plans submitted, it was shown to the satisfaction of the Lake Carriers' Association, at a meeting held in Detroit on Jan. 23, with the Board of United States Engineers appointed by the War Department, that the impairment of the waterway will be immaterial. The total width of the river from harbor line to harbor line is 2,400 ft. It was shown that the tunnel building operations will not obstruct more than 600 ft. of this distance at any one time, leaving the remainder clear to navigation. It was, however, suggested that a patrol boat be maintained to serve as a pilot to passing vessels to indicate to them the particular portion of the channel that at any time was free and unobstructed, and to the maintenance of this boat H. B. Ledyard, Chairman of the Board of Directors, at once assented on behalf of the Michigan Central Rd. It is expected that the actual work in the river will be completed in eight or nine months.

The cost of the tunnel is estimated at from $7,000,000 to $8,000,000, and it is expected to have a capacity for the handling of about 4,000,000 cars per year. The present business of the Michigan Central Rd. amounts to about 400,000 cars annually, and other roads that may be expected to use the tunnel handle about 300,000 cars.

The construction of the tunnel is in the hands of an advisory board of engineers, consisting of W. J. Wilgus, H. A. Carson and W. S. Kinnear, Mr. Kinnear being chief engineer and in direct charge of the work.—Railway Age.

The Executive Council of the Canadian Manufacturers' Association, with a view of building up trade at Canadian ports, has passed a resolution favoring the application of the preferential tariff in favor of British goods only on such as are landed direct at Canadian ports. At present the preferential tariff is applied to goods entering Canada, through U.S. ports as well as to goods coming direct to Canadian ports.

The Shedden Forwarding Co. has been granted a supplemental charter under the Dominion Companies' Act, by which its capital is increased from $700,000 to $1,500,000 and its powers have been extended so that it may engage in the manufacture of vehicles of every description; construct and operate grain elevators and warehouses; develop electric and other power; and acquire stock in similar enterprises.

C.P.R. Western Officials' Conference.

Following are the opening remarks of W. Whyte, Second Vice-President C.P.R., at the conference of officials, Western Lines, held at Field, B.C., Feb. 12 and 13:—

There is nothing novel about such a meeting as this in territory under my jurisdiction, as I understand that officers have frequently called conferences of those acting with them, and this widening out of the idea was adopted by myself to permit of an exchange of ideas and experience of all the principal officers, and in order that by personal contact with those occupying similar offices and with those in other departments, a better understanding and improvement might result, as well that a more profitable administration of the different departments of the railway might result to the company. The calendar year which has just closed has been, in my experience, by far the most successful in the operation of the Western Lines with respect to the volume of business handled, and particularly in the improvement made in most features of its transportation, increased tonnage and reduction in the expense of transport, as well as the improvement in the passenger service and the handling of package freight, and I think, also, from the fact that there has been less disturbance of the car and the power supplied during the movement of the wheat crop in districts not directly affected by that movement. There has also been an improvement in the carrying out of work authorized by the appropriation and in the building of new lines, much of the work having been

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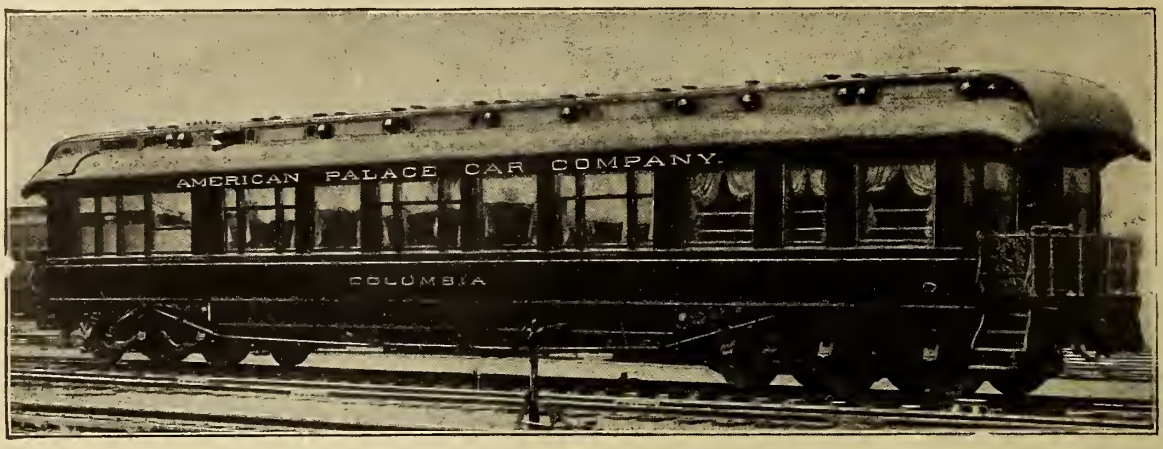

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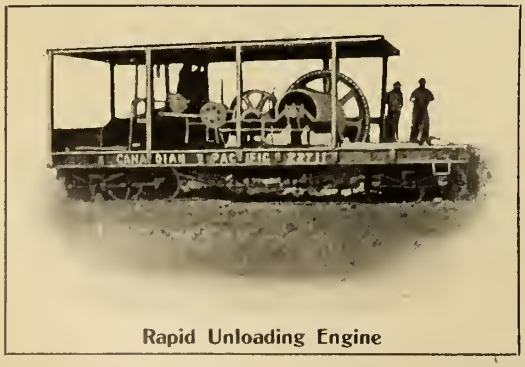

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hurried through and in use, and the new equipment thereon made available for the handling of wheat traffic.

The disturbing factor that has given myself and the operating officers most grave concern has been the frequency of serious accident, and one of the most important considerations that led to my calling the present meeting was to see if by conference, we could gain additional knowledge how to combat the influences or circumstances that lead up to this most regrettable feature of our operation. Notwithstanding that we are working under a set of almost perfect rules, and have gone to the greatest amount of trouble to educate our men to a knowledge of them, we are yet without that benefit which should have accrued to us from the adoption and grounding of this knowledge into the minds of employes. I have urged most particularly upon all concerned the exercise of the greatest care in selecting men for the telegraph, engine and train services, and have pressed as strongly upon officers supervising these departments, to keep their men in an up-to-date knowledge of the rules pertaining to their duties, and particularly to notice their habits. I have felt that selection, character and obedience to the rules and its features that lead to safety, leaving only that chance which we cannot guard against—error in judgment. Apart from this, the matters that I look for the most improvement in, this present year, are:—First, the time of our passenger trains, accelerating their speed as far as the track conditions will permit, and cutting out all dead time at stations; also the education of the enginemen so that they will make greater effort to maintain their schedule, or to recover time lost prior to taking hold. Second, the first-class freight service. Third, the car supply for points distant from headquarters. Fourth, the hurrying home of foreign equipment. In no account in our expenses have we made such an improvement as in this, but it has not yet reached my expectations.

I would urge upon all concerned to curtail their correspondence, doing as much of their business as possible in personal contact with their officers, thereby leaving more time at their disposal and hands unfettered for originating improvements in the handling of traffic. I would urge, now that the rates paid in all departments have gone up so much in the past two years, that we should take every means to cull from the service all who are not fully capable of giving service equivalent to the rates paid, and a continued and improved economy in the employment of men in all branches of our maintenance work.

This company has been the pioneer of business enterprise in the west, and it is essential that it should retain the lead, both in its methods and in its administration of them. This is no small task when we think of the great increase in the wealth of the country, which has attracted so many shrewd men from many countries, the fusion of whose business wits has done much to greatly stimulate trade. No matter what competition we have in the future, this company's railway must always remain the main artery through which the trade of the west will pulsate. If the officers and men will see that all the business offering to it is taken care of promptly, and that all its scheduled trains, whether they be passenger or freight, are run strictly to schedule, and that fine courtesy on the part of its employes, for which this company is so justly celebrated, is maintained, we have no need to be alarmed at the advent of any competing lines, and I would urge upon all that they leave no impediment in the way of accomplishing this result.

Canadian Car Service Rules.

J. E. Duval, Manager of the Canadian Car Service Bureau, in issuing a copy of the Canadian Car Service Rules as promulgated by the Board of Railway Commissioners, and published in THE RAILWAY AND MARINE WORLD for March, has sent the following instructions to agents:—

The foregoing rules are promulgated by the Board of Railway Commissioners for Canada with respect to the payment and collection of car service charges and their strict enforcement is made imperative. Agents have no authority to vary or depart therefrom.

The manager is authorized by the railway companies to act for each and severally, and will interpret these rules liberally, and enforce them without unjust discrimination or undue preference.

Where any uncertainty exists as to the interpretation of the rules or their application the manager must be communicated with promptly.

Claimants seeking refund should be advised to address the manager direct, enclosing paid car service bill and stating fully the grounds upon which refund is asked.

The manager will supply each railway with the authorized blank forms. Agents will make requisitions on the railway company, in the usual manner, for the necessary supply. Economy must be observed in the use of books, blanks, etc., and care is required in the preservation of all records.

All car service charges shall belong to the railway upon whose tracks the cars are detained, and must be collected and remitted in the same manner and with the same regularity and promptness as other transportation charges or tolls.

When the name and address of the party to notify are not shown on the way bill for a car consigned "to order," or when the consignee cannot be located promptly, the forwarding station must be communicated with by telegraph.

If shipper refuses to pay car service charges on any car delayed in loading or for forwarding instructions, the agent must refuse to issue bill of lading or forward the freight until car service charges are paid or authorized billed as advance charges and inserted in the bill of lading. If the regulations of the freight department require that all charges shall be prepaid, the car service toll must be collected before the bill of lading is issued.

Car service charges which accrue at any point other than the forwarding point, or point of delivery, and not collected, must be billed forward for collection.

In all cases where cars are refused by shipper or consignee, or where payment of the car service toll is refused, a special report with full particulars must be made promptly to the manager.

When a shipment has been transferred, the notice of arrival must also show the original car number.

Cars loaded with the railway company's material or supplies must not be reported.

All cars either of railway or private ownership, which are, or are to be, loaded or unloaded by the shippers or consignees thereof, must be reported on the prescribed forms, whether car service charges accrue or not.

Full instructions are also given in regard to the use of the various forms.

The question of building car works in or near Toronto for Mackenzie, Mann & Co.'s railway system is believed to be under consideration.

We are advised that there is no foundation for the report that the C.P.R. has arranged a traffic agreement with the Oregon Rd. and Navigation Co., to which reference was made in a recent issue.

Canadian Society of Civil Engineers.

The 20th annual meeting of the members was held in Toronto. The society was welcomed to Toronto on behalf of the Engineers' Club of Toronto by its President, F. L. Somerville, Division Engineer, G.T.R.

The council reported that there were now 10 honorary members, 406 members, 424 associate members, 36 associates and 513 students on the roll, a total of 1,389 against 1,261 in 1905. Thirteen meetings were held during the year, four business meetings and nine sectional meetings. The Gzowski medal for 1904-05 was awarded to C. B. Smith, Chairman and Consulting Engineer, Temiskaming and Northern Ontario Ry. Commission for his paper on the Construction of the Canadian Niagara Power Co.'s 100,000 h.p. hydro-electric plant at Niagara Falls, Ont. The Treasurer's report showed an income of $8,107.23, exclusive of a balance of $3,270.81, brought forward from 1904, and the expenditure was $10,057.74, leaving a balance of $1,320.30.

The council reported a recommendation of the committee on standards to the effect that it was not desirable for the society to take any action lending its official approval to any particular design or method of manufacture. Standardizing of methods of testing is commended in the hope of making a uniformity in the English, Canadian and United States methods. The standards committee report was submitted by Prof. R. J. Durley, of McGill College, Montreal, who pointed out the vast field of labor and the importance of undertaking. The report will be discussed at a future meeting.

The election of officers resulted as follows:—President, H. D. Lumsden, Ottawa; Vice-Presidents, M. J. Butler, Ottawa; C. B. Smith, Toronto; W. McL. Walbank, Montreal; Councillors, W. F. Tye, P. Johnson, H. Holgate, J. Kennedy, R. A. Ross, L. A. Herdt, J. E. Hardman, J. B. Porter, J. G. G. Kerry, R. J. Durley, Montreal; D. MacPherson, Ottawa; R. McColl, Halifax, N.S.; C. Fergie, Sydney, N.S.; E. A. Hoare, Quebec; H. MacLeod, Winnipeg; J. S. Dennis, Calgary, Alta.; G. H. Webster, E. Mahum, Vancouver, B.C.

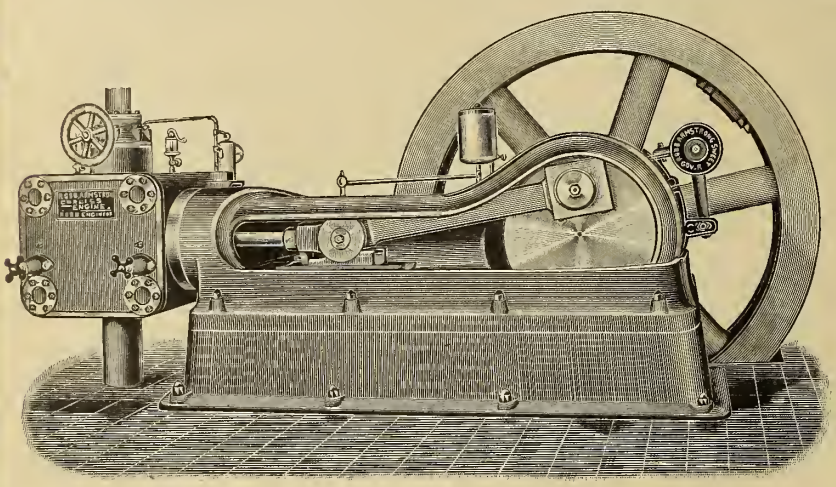
On the second day W. J. Francis read a paper on "Hydraulic Locks on the Trent Canal," and papers on "Tide Levels and Datum Planes on the Pacific Coast," by D. W. B. Dawson, of the Department of Marine, Ottawa, and on "Dam Construction," by C. P. Baillairge were distributed.

The retiring President, E. Marceau, gave an address on "The Origin of our Canal System," in which he reviewed the origin and growth of the St. Lawrence, Ottawa and Richelieu river canals. The first canal construction was commenced in 1708 when the Order of Sulpicians undertook to construct a canoe route to avoid the most dangerous of the Lachine rapids. This was never completed, but traces of it can still be found. It was many years afterwards before anything was done, and in a table arranged by Mr. Marceau, the development of the canal system is divided into four periods, viz.:—1st, 1777 to 1816; 2nd, 1816 to 1840; 3rd, 1840 to 1870; 4th, 1870 to 1895. Maps and plans reproduced from old drawings etc., were shown to illustrate the address.

A resolution was passed instructing the council to represent to the Dominion Government the necessity for more complete coordination of various surveys conducted by its departments, the securing of permanent records, and the ultimate establishment of a general topographic and geodetic survey scheme. Another resolution supported the Government's reafforestation scheme, and the establishment of a Dominion school of practical forestry.

During the meetings the members visited the power development plants at Niagara

A Fine Steam Plant



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Falls, and inthe evening were entertained at a smoker at the clubhouse of the Engineers' Club of Toronto, and the annual banquet. The Minister of Railways and Canals being among the guests.

April Birthdays.

Many happy returns of the day to—

J. A. Armstrong, Chief Dispatcher C.P.R., Ottawa, born at South Durham, Que., April 6, 1863.

Adam Brown, formerly President Wellington, Grey and Bruce Ry. (now G.T.R.), Vice-President G.N.W. Telegraph Co., and Postmaster of Hamilton, born at Edinburgh, Scotland, April 3, 1826.

A. Buchanan, Superintendent of Motive Power, Central Vermont Ry., St. Albans, Vt., born at New York City, April 3, 1870.

W. J. Camp, Electrical Engineer C.P.R. Telegraphs, Montreal, born at Oakville, Ont., April 22, 1855.

A. H. Clark, Master Mechanic Irondale, Bancroft and Ottawa Ry., Irondale, Ont., born April 5, 1867.

J. H. Flock, K.C., Honorary Counsel Canadian Ticket Agents' Association, London, Ont., born at Toronto, April 6, 1834.

B. W. Folger, Manager Niagara Navigation Co., Toronto, born at Kingston, Ont., April 8, 1872.

W. E. Fowler, Master Car Builder C.P.R., born at Weymouth, Dorsetshire, Eng., April 27, 1856.

G. H. Garden, C.E., Chief Engineer Alberta Ry. and Irrigation Co., Lethbridge, Alta., born at Woodstock, N.B., April 5, 1849.

F. A. Gascoigne, Car Accountant C.P.R., Montreal, born at Gosport, Hants, England, April, 1866.

J. P. Gay, Manager G. T. Despatch Fast Freight Line, Detroit, Mich., born at Hamilton, Ont., April 26, 1857.

E. A. Geiger, ex-Superintendent Brockville, Westport and Northwestern Ry., Brockville, Ont., born at Newark, N.J. April 10, 1863.

B. C. Gesner, formerly Air Brake Inspector I.C.R., now travelling representative Galena-Signal Oil Co., born at Cornwallis, N.S., April 23, 1859.

A. L. Hertzberg, Engineer Maintenance of Way, C.P.R., Montreal, born in Norway, April 30, 1855.

E. J. Hilliard, Commercial Agent G.T.R., Buffalo, N.Y., born at Montreal, April 14, 1870.

J. M. Horn, city freight agent Canadian Northern Ry., Winnipeg, born at Schoots, Lanarkshire, Scotland, April 12, 1880.

E. A. James, Manager Canadian Northern Ry., Winnipeg, Man., born in London, Eng., April, 1865.

B. S. Jenkins, General Superintendent C.P.R. Telegraphs, Winnipeg, Man., born April 8, 1859.

J. S. Lawrence, Superintendent C.P.R., Nelson, B.C., born at Toronto, April 9, 1863.

D. McNicoll, Vice-President C.P.R., Montreal, born at Arbroath, Scotland, April 7, 1852.

W. A. Ritchie, District Superintendent The Pullman Co., Montreal, born at Edinburgh, Scotland, April 13, 1854.

E. V. Skinner, Assistant Traffic Manager C.P.R., New York, born in London, Eng., April 22, 1849.

J. Sparks, Assistant General Baggage Agent C.P.R. Western Lines, Winnipeg, Man., born in London, Eng., April 25, 1874.

A. M. Sutherland, Assistant Superintendent Duluth, South Shore and Atlantic Ry., Thomaston, Mich., born at Hartford, Conn., April 2, 1844.

J. R. VanCleve, Master Mechanic Alaska Central Rd., Seward, Alaska, born at Little Falls, Minn., April 6, 1859.

W. Wainwright, General Assistant and Comptroller G.T.R., Montreal, born at Manchester, Eng., April 30, 1840.

J. J. Wallace, General Freight Agent I.C.R., Moncton, N.B., born in Albert Co., N.B., April 20, 1847.

G. C. Wells, Assistant General Passenger Agent C.P.R., Montreal, born at Brockville, Ont., April 15, 1866.

Hon. J. Wood, President and General Manager New Brunswick and Prince Edward Island Ry., Sackville, N.B., born at Sackville, N.B., April 18, 1843.

W. Woollatt, ex-General Superintendent Buffalo Division Pere Marquette Rd., Walkerville, Ont., born at Weedon, Hertfordshire Eng., April 2, 1855.

J. B. Lambkin, Assistant General Passenger Agent, Intercolonial Ry., Moncton, N.B., born Quebec city, April 5, 1858.

Quebec Railway Subsidies.

At the recent session of the Quebec Legislature subsidies were granted to a number of railways as follows:—

ATLANTIC, QUEBEC AND WESTERN RY.—For 50 miles from Gaspe towards Causapscal on the I.C.R., and for 100 miles from Paspebiac to Gaspe, following the shore as nearly as possible, 4,000 acres of land a mile.

GREAT NORTHERN RY.—For 85 miles from Quebec to near Garneau Jct., or Grand Mere, and for 18 miles from St. Sauveur to St. Jerome, 2,000 acres of land a mile.

INTERPROVINCIAL AND JAMES BAY RY.—For 50 miles from Gordon Creek, at the terminus of the C.P.R branch line from Mattawa, Ont., to Ville Marie, 4,000 acres of land a mile.

JOLIETTE AND LAKE MANUAN COLONIZATION RY.—For 60 miles from Joliette towards Manuan Lake, 4,000 acres of land a mile.

LOTBINIERE AND MEGANTIC RY.—For 30 miles from Lune Ridge to the Quebec Bridge, 2,000 acres of land a mile.

MATANE AND GASPE RY.—For 30 miles from near St. Octave on the Intercolonial Ry., to Matane, 4,000 acres of land a mile.

NORTHERN COLONIZATION RY.—For 32 miles from Nominigue to L'Original Rapid, 3,000 acres of land a mile.

ORFORD MOUNTAIN RY.—For 5 miles from Eastman to Lake Bonaille, 2,000 acres of land a mile. For 10.84 miles from Kingsbury in the direction of Windsor Mills, 4,000 acres of land a mile, but not to exceed $43,373.50. This latter subsidy is in lieu of a lapsed balance granted by other acts.

PONTIAC AND INTERPROVINCIAL RY.—For 20 miles from Waltham station to Ferguson's Point; 4,000 acres of land a mile.

QUEBEC AND LAKE ST. JOHN RY.—For 2 miles from mileage 38, La Tuque branch to La Tuque, on River St. Maurice; for 1 mile from Roberval to the Government wharf on Lake St. John; for 3.8 miles from Valcartier to St. Catherine; for 4½ miles from Valcartier towards Gosforth; for 12 miles extension of the last mentioned line, including a branch 3½ miles long to the River aux Pins in St. Gabriel West, at the rate of 3,000 acres of land a mile, except the mile from Roberval to the Government wharf, for which the subsidy is 4,000 acres of land.

QUEBEC CENTRAL RY.—For 9 miles from St. Francis to St. George, Beauce, 4,000 acres of land a mile.

ST. MAURICE VALLEY RY.—For 30 miles from Three Rivers to Grand Mere, and to a junction with the National Transcontinental Ry., 2,000 acres of land a mile.

For a line from Roberval for 30 miles towards James Bay, a subsidy of 4,000 acres of land was voted; and unnamed subsidies were voted in aid of lines from Herbertville to St. Joseph d'Alma, 10 miles; and from Jonquieres in the direction of Ha-Ha Bay, 20 miles. These three lines are in territory in which the Quebec and Lake St. John Ry. is operating, and for which the interests connected with it hold charters.

The conditions attached to the subsidies are that work has to be commenced within two years from July, and completed within four years; that minerals are reserved in favor of the Crown, and that the company receiving the grant shall sell to actual settlers land at not exceeding $2.50 an acre.

Railway Legislation of the Dominion of Canada from 1867 to 1905.—In 1898, J. E. W. Currier, of the Department of Railways and Canals, published an index to the acts passed by the Parliament of Canada from the date of Confederation in 1867. A second edition, bringing the information up to the end of 1905, and extending to 232 pages, has just been issued. The volume contains an alphabetical index to all acts passed affecting railways, in which is given the year and chapter of the act, with the purpose for which each act had been passed; alphabetical index to telegraph, telephone and cable companies; index of orders-in-council having the force of law affecting transportation matters; table showing the location of railways as constructed to June 30, 1904; a section devoted to subsidized railways showing the amount of subsidies paid in each year since Confederation, a table giving the land grant, a third giving the cash subsidies voted, earned and paid, another giving the subsidies paid annually or by way of loan; and some statistics relating to the Government railways, and electric railways. Added to this is a good deal of general information relating to the railway history of the world; the quantity of materials required for one mile of track or per ton of rails; information relating to the canal system of the Dominion; the rules and regulations of the Board of Railway Commissioners; together with the regulations regarding railway legislation, contracts under the subsidy act, the fair wages clause in contracts, and a model railway bill. The book is a valuable one for all interested in railway matters, and it has been adopted by the Department of Railways and Canals, and by the Board of Railway Commissioners. The edition is a limited one and the price is $3.75.

The New Brunswick Gypsum Co. has been incorporated under the New Brunswick Companies' Act, with a capital of $30,000, and offices at Hillsboro, to mine, manufacture and sell gypsum and gypsum products, and in connection therewith to construct tramways, docks, piers, wharves, telephone lines and telephones, electric lighting and power, steam and other vessels. The provisional directors are:—. —. Tomkins, Tomkins' Cove, N.Y.; C. Tomkins, New York; H. W. Ladd, Boston, Mass.; C. J. Osman, Hillsboro, N.B.

Under Sec. 122 of the Railway Act, 1903, it is provided that before the location of any railway can be approved, the company shall prepare a map, in duplicate, upon a scale of not less than six miles to the inch, or such other scale as the Minister of Railways may have approved, showing the general location of the proposed line, the termini, and the principal towns and places through which it is to pass, the railways, navigable streams and tide waters, if any, to be crossed, and such as may be within a radius of 30 miles; and the physical features of the country. This provision only applies to the main line and to branch lines over six miles long. Upon this being approved, plans, profiles and books of references shall be filed, either for the whole line, or for any section of the line. The Department of Railways has an unwritten rule in regard to these applications providing that an opportunity shall be afforded all parties having similar railway interests to be heard in the matter before the application is dealt with by the Minister.

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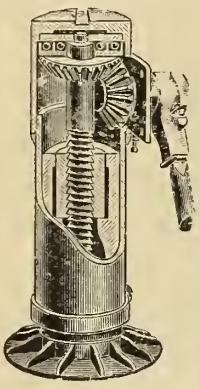
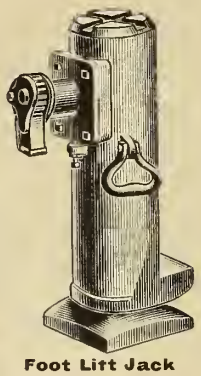

Sectional View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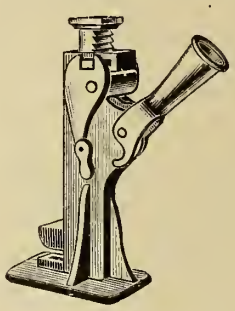
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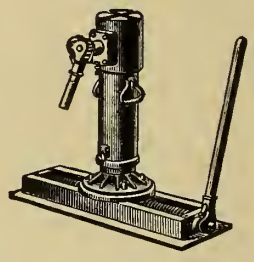
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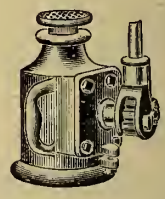
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RAILWAY DEVELOPMENT.

Projected Lines, Surveys, Construction, Betterments, Etc.

Alberta and Flathead Ry.—Application is being made at the current session of the Dominion Parliament for an act incorporating a company with this title to construct a railway from the Crow's Nest branch of the C.P.R. near Pincher Station, Alta., via the Waterton Lakes and the Flathead River valley to the source of that river, with power to construct branch lines, and pipe lines for carrying oil along the railway right-of-way. The company desires to construct telegraph and telephone lines and to operate its railway by steam or electric power. A. C. Kemmis, solicitor, Pincher Creek, Alta., is acting for the applicants.

Boundary, Kamloops and Caribou Central Ry.—The Dominion Parliament will be asked at its current session for an act authorizing the construction of a line from Grand Forks, following the north fork of the Kettle River to Franklyn Camp and Fire Valley, thence to Grand Prairie; and extending the time for the construction of the several authorized lines.

Bracebridge and Trading Lake Co.—We are advised that it is expected to begin work on the construction of this line from Bracebridge to Trading Lake, Ont., very shortly, and that the line will be completed by Aug. 1. The annual meeting of shareholders was held at Bracebridge, Mar. 12. Following are the officers for the current year:—President, F. P. Warne; Vice-President W. H. Brown; Secretary-Treasurer, R. P Perry; Solicitor, T. Johnson.

British Pacific Ry.—Application is being made at the current session of the Dominion Parliament for an act incorporating a company to construct a railway from Victoria, B.C., via Bute Inlet and Yellow Head Pass, to Edmonton, Alta.; thence to Churchill on Hudson Bay; with a branch to a port on the west coast of Vancouver Island. Hogg & Magee, solicitors, Ottawa, are acting for the applicants.

Canadian Central Ry.—Application will be made next session of the Saskatchewan Legislature for the passing of an act incorporating a company with this title with power to construct a line of railway from Regina south and south-westerly to the International boundary with a branch from near Wood Mountain westerly to the western boundary of the Province; also from Regina north-westerly to the south branch of the Saskatchewan River, thence to the western boundary of the Province; also from Regina south and south-easterly to the International boundary. Jas. Balfour, solicitor, Regina, Sask., is acting for the applicants.

Detroit Tunnel.—The Canada Southern Ry. has made application to the Railway Commission for an order to expropriate lands in Windsor, Ont., and vicinity, required for terminal purposes in connection with the tunnel now being constructed by an allied company under the Detroit River. Among the works proposed in connection with the new terminal is the diversion of certain streets, the closing up of Marias road, and the construction of a subway under Macdougall St. The present yards will be moved back for about a mile and a half. The total cost of the various improvements contemplated is about $5,000,000. The commission directed its Chief Engineer to inspect the locality and plans, and to make a report prior to any order being issued. (April, pg. 131)

Erie, London and Tillsonburg Ry.—Application will be made at the current session of the Dominion Parliament for an act incorporating a company with this title to construct a railway from Port Burwell to London, passing through or near Aylmer, and from some convenient intervening point to Tillsonburg, Ont. Power is also asked to carry on a general navigation business and other allied operations. Gibson & Harper, solicitors, London, Ont., are acting for the applicants. Local press reports state that the line is projected in the interests of the C.P.R., which during 1905 acquired the Tillsonburg, Lake Erie and Pacific Ry., extending from Port Burwell to Ingersoll.

Fort William and Port Arthur Terminal Ry. and Bridge Co.—Application will be made at the current session of the Dominion Parliament for an act incorporating a company with this title with power to construct a number of short lines of railway to connect the several lines of railway in Fort William and Port Arthur, the G.T. Pacific Ry.; terminals under construction; the various industries in the district and the navigable waters; with power to construct bridges; to charge tolls for the use of the same; to own steam and other vessels, and to act as common carriers. Dowler & Sinclair, solicitors, Tillsonburg, Ont., are acting for the promoters.

Hamilton to Guelph.—Application is being made at the current session of the Ontario Legislature for an act authorizing the construction of a railway, to be operated either by steam or electricity, from Hamilton to Guelph Junction, on the Ontario and Quebec Ry. (C.P.R.). Biggar & McBrayne, solicitors, Hamilton, Ont., are acting for the applicants.

Huron and Ontario Ry.—The Dominion Parliament at its current session will be asked to pass an act giving further and additional powers to issue bonds, and for the purpose of authorizing the construction of branches from Port Perry to a point on Lake Ontario, at or near Whitby or Oshawa, Ont.; from Goderich through the counties of Huron, Middlesex, Lambton, Kent and Essex, touching at Parkhill and Strathroy, to Windsor and Sarnia. Proudfoot, Duncan, Grant & Skeans, solicitors, Toronto, are acting for the company.

International Ry. Co. of New Brunswick.—The New Brunswick Legislature is being asked at its current session for an act incorporating the International Ry. Co. of N.B., and confirming the proceedings of the meettings of shareholders and directors. The company was incorporated under letters patent in New Brunswick, and acquired the charter of the Restigouche and Western Ry., which it is constructing. T. Malcolm, railway contractor, Campbellton, N.B., is the principal man interested in the project, and A. I. Trueman is solicitor to the company.

The James Bay Ry. will cross the C.P.R. main transcontinental line about two miles west of Wahnapitaé, Ont., and run north for about 2½ or three miles, when it will swing west to Sudbury, about 10 miles. From the point where the line turns west a branch is to be constructed to some iron mines in Hutton tp., about 25 miles. A contract has been let for the construction of the branch line to the Northern Construction Co., which also has contracts on the main line. Surveys have been made from two or three miles south of French River to Key Inlet, where soundings are being made of the harbor. It is expected to have the line open from Toronto into the Muskoka country in June, to French River in Sept., and to Sudbury by the end of the year. (Mar., pg. 131.)

Klondike Mines Ry.—An issue of £125,000 of 6% consolidated debentures has been offered at par, in London, Eng., by the Dawson, Grand Forks and Stewart River Ry., for construction purposes of the Klondike Mines Ry. This latter railway has powers to issue debentures to the amount of $5,520,000 upon the line it is authorized to construct from Dawson to Stewart River, Yukon. (Feb., pg. 63).

Manitoulin and North Shore Ry.—The Dominion Parliament will be asked at its current session for an act extending the time within which it may construct its authorized railway.

Midland Ry. of Manitoba.—Plans have been deposited in the Land Titles Office, Portage la Prairie, Man., of a bridge proposed to be constructed over the Assiniboine River near Portage la Prairie, and the Dominion Government will be asked, April 2, to give its approval of the same, as required by the terms of the act respecting certain works in or over navigable waters. (Feb., pg. 63).

The Nipissing and Pontiac Ry. will apply at the current session of the Dominion Parliament for an act granting an extension of time for the construction of this projected line.

Ontario Northern and Temagami Ry.—The Temagami Ry. which last session obtained parliamentary power to change its name to the O.N. and T. Ry., will apply at the current session of the Dominion Parliament for an act giving power to extend its authorized line from Sturgeon Falls, north-westerly to the Missinabi River, and extending the time for the construction of the several lines.

Ottawa, Brockville and St. Lawrence Ry.—The Dominion Parliament will be asked at its current session to grant an extension of time for the commencement and completion of this projected railway.

Pacific and Eastern Ry.—At the current session of the Dominion Parliament application will be made for the passing of an act incorporating a company with this title for the purpose of constructing a standard or narrow-gauge railway to be operated by steam, electricity or other motive power. The projected route of the line is from Victoria northerly to the northern end of Vancouver Island, thence to the mainland at or near Bute Inlet, and easterly through the Cariboo district, via the Yellowhead Pass to Edmonton, Alta., then easterly to Prince Albert, Sask., and then north-easterly by the most feasible route to Fort Churchill on Hudson Bay, and a branch line from Edmonton to Dunvegan, on the Peace River. All the usual powers are asked for, as well as authority to develop and distribute electrical power, to own and operate hotels, and to carry on a number of businesses. Belcourt & Ritchie, solicitors, Ottawa, are acting for the applicants.

Prince Albert, North Saskatchewan and Hudson Bay Ry.—Application will be made at the current session of the Dominion Parliament for an act incorporating a company with this title to construct a railway from Prince Albert, Sask., northerly by Pine Island Lake, thence by the most feasible route to Fort Churchill, on Hudson Bay, with power to construct branch lines from Goose Lake to Pas Mission, and from near Goose Lake to Burnt Wood Lake, Sask.

Quebec, Montreal Southern Ry.—Application is being made at the current session of the Dominion Parliament for an act incorporating a company with this title to acquire and operate the Quebec Southern Ry. (including the South Shore Ry., the United Counties Ry., and the East Richelieu Valley Ry.), recently sold to the Delaware and Hudson Rd., by order of the Court of the Exchequer, under the provisions of the Railway Act dealing with insolvent companies. Power is also asked to complete the lines which the South Shore Ry. was authorized to construct, and to extend the line from Noyan Jct. to

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Southern Pacific Terminal Co.'s Elevator, Galveston, Texas	"	1,000,000 "
Erie R. R. Transfer & Clipping House, Chicago, Ill.	"	100 cars in 10 hrs.
Manchester Ship Canal Co.'s Elevator, Manchester, Eng.	"	1,500,000 "
Burlington Elevator Co., Peoria, Ill.	"	500,000 "
Canada Atlantic Railway Elevator, Coteau Landing, Que.	"	500,000 "
Northern Grain Co., Manitowoc, Wis.	"	1,350,000 "
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the International boundary line. The company also desires power to own hotels, to operate steam and other vessels, elevators, etc. Beique, Turgeon, Robertson & Beique, solicitors, Montreal, are acting for the applicants.

Quebec, Saguenay and Gulf of St. Lawrence Ry.—The Dominion Parliament is being asked at the current session of the Dominion Parliament for an act extending the time within which the company may construct its projected railway.

Quebec South-Eastern Ry.—Application will be made at the current session of the Dominion Parliament for an act incorporating a company with this title to construct a railway from near Levis, Que., to the mouth of the St. Croix River, New Brunswick. T. Paquet, solicitor, Quebec, is acting for the applicants.

Saskatchewan and Alberta Ry.—The Saskatchewan Legislature will be asked next session for an act incorporating a company with this title to construct the following lines of railway:—from Moose Jaw, southerly or south-easterly to the International boundary; from Swift Current south-easterly or easterly to a junction with the first named between Moose Jaw and the International boundary; from Swift Current north-westerly to the western boundary of the Province; a branch from the terminal point of the last named line to tp. 5, range 30, west third meridian, thence easterly and north-easterly to the second named line; a branch from the last mentioned line tp. 4, range 15, west second meridian, northerly via Indian Head to the northern boundary of the Province; and from Moose Jaw to the North Saskatchewan River. Power is also asked to operate steam and other vessels on the navigable waters touched by the lines. C. E. Armstrong, solicitor, Moose Jaw, Sask., is acting for the applicants.

Shediac and Coast Ry.—The New Brunswick Legislature is being asked at its current session to revive, re-enact and continue the corporate powers of the Shediac and Coast Ry., and to extend the time for the completion of the authorized line.

Thorold and Lake Erie Ry.—The Dominion Parliament is being asked at its current session for an act changing the provisional directors, increasing the capital stock, and extending the time within which its projected railway may be constructed.

Toronto, Hamilton and Buffalo Ry.—The Dominion Parliament will be asked at its current session for an act changing the name of the company to the Toronto, Niagara and Western Ry., and authorizing it to extend its line from some point on its line to the International boundary line at Windsor, Ont.; increasing its capital stock; authorizing it to arrange with power companies for the transmission of electric power over its right of way; confirming an agreement made with the Toronto and Niagara Power Co., and granting an extension of time for the construction of its previously authorized lines.

Vancouver, Fraser River and Southern Ry.—Application will be made at the current session of the Dominion Parliament for an act incorporating a company with this title with power to construct a standard or narrow-gauge railway, to be operated by steam, electricity or other motive power, from Vancouver to New Westminster, thence southerly to the International boundary near Blaine, Wash.; from some point south of and near the Fraser River, easterly along the Fraser River valley to Chilliwack; from about the same point westerly along the Fraser River Valley to Delta, B.C. Power is also asked to construct bridges, maintain roads, ways and ferries, operate telegraph and telephone lines, and to develop and distribute electric power. It is also proposed to ask for authority to amalgamate with other companies having similar powers, and to connect its lines, etc., with those of a similar company in the State of Wash., U.S. McPhillips, Tiffin & Laursen, solicitors, Vancouver, B.C., are acting for the applicants.

Windsor, Chatham and London Ry.—Application is being made to the Dominion Parliament at its current session for an act incorporating a company with this title to construct a railway from Windsor easterly, via Chatham to London, Ont.; power to enter into an agreement with the company constructing the tunnel between Detroit, Mich., and Windsor, Ont., for the use of the tunnel by the company's cars; to amalgamate with, lease or purchase the Windsor, Essex and Lake Shore Rapid Ry., and to declare the company's proposed line to be one for the general advantage of Canada. The proposed capital is $2,000,000; the offices are to be at Windsor, and the applicants are: W. E. McKeough, W. T. and J. Piggott, Chatham, Ont.; W. J. Mossatt, W. C. Crawford, Tilbury, Ont.; J. Brien, Essex, Ont.; T. E. Robinson, Detroit, Mich.; E. A. Tennis, Philadelphia, Pa. G. J. Leggatt, solicitor, Windsor, Ont., is acting for the applicants.

Yonge St. Bridge, Toronto.—Application is being made at the current session of the Dominion Parliament for an act validating and confirming an order of the Railway Committee of the Privy Council, dated Jan. 14, 1904, for the construction of a bridge at the foot of Yonge St. over the tracks of the G.T.R. and C.P.R., and extending the time for the construction of the same. Power is also being asked by the city for authority to build the bridge and to collect the cost from the two railway companies named, in the event of their not constructing the bridge within a reasonable time.

Taxes on Corporations in Quebec.

The Quebec Legislature at its recent session passed an act providing for the collection of taxes from the various incorporated companies doing business in the province. Following are particulars respecting the taxes to be levied on the railways and other companies allied with transportation interests:—

Upon all railways towards the construction of which the Province of Quebec, or the late Province of Canada, voted subsidies, 1-5 of 1 % upon the capital and $10 per mile of line in operation, and upon all other railways, $5 for each mile of line in operation. The lines liable for the first mentioned tax are set out in the schedule as follows:—The C.P.R. for that portion of its railway in the province, extending from Montreal to St. Jerome, Aylmer and Ottawa city, together with the St. Lin and St. Eustache branches; Montreal and Laurentian Colonization Ry.; Pontiac Pacific Junction Ry., for that portion of its railway in the province; Lake Champlain and St. Lawrence Jct. Ry.; Missisquoi Valley Ry.; Montreal, Portland and Boston Ry.; Quebec Central Ry.; Quebec and Lake St. John Ry.; Waterloo and Magog Ry.; G.T.R. of Canada, for that portion of its railway in the province; North Shore Ry.; South-Eastern Ry.; International Ry.

Tramway companies will be charged $50 for each mile of single track of railway or tramway in operation, and $100 for each mile of double track.

Companies or partnerships carrying on an express or forwarding business will be charged 5-10 of 1 % upon the gross earnings in the province provided the tax be not less than $800; a fixed sum of $800 shall be the amount of the first payment of tax exigible from such express company or partnership commencing to do business in the province; an additional tax of $50 shall be paid for every place of business in Montreal and Quebec, and $20 for each place of business elsewhere in the province; a further tax of 1-5 of 1 % upon the paid-up capital shall be collectible from any express company or partnership foreign to the Dominion doing business in the province.

Telegraph companies will be charged $1,000, but such tax shall not be charged wireless telegraph companies before July, 1906.

The tax to be charged telephone companies is based on the paid-up capital at the following rates:—1-10 of 1 % on $50,000 or less; $300 on from $50,000 to $100,000; $500 on from $100,000 to $200,000; $1,000 on from $200,000 to $300,000; and in addition a charge of 5-10 of 1 % on the gross earnings, but not to be less than $2,000, nor more than $3,000 if the capital exceeds $300,000.

Upon navigation companies a tax is to be levied at the rate of 1-10 of 1 % upon the amount of the paid-up capital to $500,000, and $50 for each $100,000 or fraction thereof above that amount; and an additional amount of $50 for the most important place of business in Montreal and Quebec, and $20 for the most important place of business in any other place.

Railway Rolling Stock Notes.

The Canada Car Co., Montreal, has about completed the order for 1,000 box cars, 30-tons capacity, for the G.T.R.

The Dominion Atlantic Ry. has placed an order for 25 flat cars and one caboose with Rhodes, Curry & Co., Amherst, N.S.

Capt. G. C. Coles of Collingwood, has been inspecting for Lloyds the fleets wintering at Hamilton, Collingwood, Owen Sound, and Midland.

The G. T. Pacific Ry. has placed an order for two 2½ yard Atlantic type steam shovels, for June delivery, with the Locomotive and Machine Co., of Montreal.

The balance sheet of the Dominion Coal Co. for the year ended Dec. 31, shows a liability of $298,559.47 on account of rolling stock debentures against an amount of $353,785.08 for the year ended Dec. 31, 1904.

The Crossen Car Manufacturing Co. has delivered 3 workmen's cars and one first-class coach to the Temiskaming and Northern Ontario Ry.; 75 box cars to the Intercolonial Ry., and is at present delivering box cars to the James Bay Ry.

The C.P.R. between Feb. 17 and Mar. 14, received the following rolling stock:—7 freight locomotives from the Locomotive and Machine Co., of Montreal; 4 freight locomotives, 450 box cars, 10 colonist cars, and 8 baggage and mail cars from its Angus, Montreal, shops.

The C.P.R. between Feb. 17 and Mar. 14, placed orders for the following rolling stock: 1,100 box cars, 70 flat cars and 20 stock cars, 20 first-class cars, 10 baggage and express cars and 10 sleeping cars at its Angus, Montreal, shops; 5 vans at its Farnham, Que., shops.

The Intercolonial Ry. has placed orders with Rhodes, Curry & Co., Amherst, N.S., for the following rolling stock:—20 conductor's vans, 25 refrigerator cars, 10 Russell wing elevator snow plows; 2 double bench snow plows; and an order for two flangers, has also been placed in Canada.

The Temiskaming and Northern Ontario Ry. has ordered 2 locomotives from the Locomotive and Machine Co., of Montreal; 4 first-class coaches and 2 baggage and express cars from the Crossen Car Manufacturing Co. of Cobourg, Ont.; 25 flat cars and 2 vans from Rhodes, Curry & Co., Amherst, N.S.

The C.P.R. is having constructed at its Angus, Montreal, shops four hand derrick cars of 15 tons capacity, the mast being of

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cast iron, and the underframe of the car of I beams and channels. The length over frame is 33 ft., and the width 9 ft. 6 in., the car to be mounted on 30-ton metal freight trucks

The Winnipeg City Council received tenders for six gondola hopper dump cars Mar. 27. The cars are to have the following dimensions:—Capacity, 800 cubic ft.; load, 80,000 lbs.; size about 30 by 8 ft. The box is to be arranged so that its capacity can be increased to 1,400 cubic ft. The cars are to be strictly self-discharging of broken stone and coal, and to be fitted with air brakes complete.

Following are general dimensions of the 1,000 box cars, 30-tons capacity, which the C.P.R. is having constructed at its Angus, Montreal, shops:—length, 36 ft.; width, 8 ft. 6 in., height, 8 ft. inside; the length and width over frames being 36 ft. 8 in., and 8 ft. 9⅝ in. respectively. The bodies are to be of wood, with Simplex body and truck bolsters and brake beams. There are also being constructed 44 flat cars, 36 ft. 8 in., by 8 ft. 10 in. over frames and 10 stock cars, 36 ft. 8 in. by 9 ft. 5 in. with similar equipment.

The cut on this page illustrates one of the five locomotives built in the C.P.R. Angus, Montreal, shops, in 1905, and placed on the Rocky Mountain sections of the line. The general dimensions were published on pg. 577 of our issue of Dec., 1905. These locomotives were the first locomotives of the camel-back type to be constructed or used in Canada. The feature of this type is that two cabs are provided, one for the engineer about the middle of the engine, and the second for the fireman, in the usual place. We have been recently advised that a change is being made in the locomotive and that in future it will have only one cab similar to the company's other locomotives.

The Canadian Northern Ry. has placed orders for six 2nd-class tourist cars with Rhodes, Curry & Co., Amherst, N.S., for delivery in May and June. The cars will be 67 ft. long; they will, in external appearance, conform to the C.N.R. standard equipment, with independent belt rail, and the upper portion of the outer sash will be half elliptic and be filled with art glass in hard metal frames. The cars will be lighted by acetylene gas, and heated by the Safety Car Heating and Lighting Co.'s thorough steam heating system in conjunction with large steel double coil fireproof Baker heater. The other equipment will include Simplex brake beams, Susemihl roller side bearings, Westinghouse air brake equipment and train signals.

Following are general dimensions, etc., of the four simple 10-wheel locomotives under construction at the Intercolonial Ry. shops at Moncton, N.B.:—

WEIGHT.—On drivers, 114,204 lbs.; total, 145,440 lbs.

CYLINDERS.—Diameter, 20 in.; stroke of pistons, 26 in.

WHEELS.—Diameter of drivers, 72 in.; driving wheel, truck and tender tires, Krupp; wheel centres, cast steel.

BOILER.—Type, extended wagon top; working steam pressure, 200 lbs.; heating surface—firebox, 154.5 sq. ft.; tubes, 1,837.8 sq. ft.; total, 1,992.3 sq. ft.; tubes— number, 270; outside diameter, 2 in.; length, 13 ft.; material, charcoal iron.

FIREBOX.—Length, 9 ft.; width, 3 ft. 4⅞ in.; material, steel; grate area, 30.6 sq. ft.

TENDER.—Tank capacity, 5,000 imp. galls.; coal capacity, 10 tons.

SPECIALITIES.—Air brakes, Westinghouse; bell ringer, I.C.R. standard automatic; brake beams, Simplex.

Following are general specifications of the 20 consolidation locomotives which are being built by the Canadian Locomotive Co., Kingston, Ont., for the Intercolonial Ry.:—

WEIGHT.—On drivers, in working order, 148,300 lbs.; total, in working order, 164,850 lbs.

WHEEL BASE.—Rigid, 15 ft. 3 in.; total, 23 ft. 6 in.; engine and tender, 54 ft. 5 in.

SIZE.—Length over all, 65 ft. 1 in.; width, 10 ft. 2 in.; height, 14 ft. 6¾ in.

HEATING SURFACE.—Firebox, 162 sq. ft.; tubes, 1,934 sq. ft.; total, 2,096 sq. ft.

WHEELS.—Driving wheels, diameter, 56 in.; main wheels, cast steel centres; others, cast iron. Driving journals, 8 x 12 in.

CYLINDERS.—Diameter, 21 in.; length of stroke 28 in.

BOILER.—Type, radial stayed; working pressure, 200 lbs.; tubes—number, 236; diameter, 2¼ in.; length, 114 in.

TENDER.—Weight, loaded, 120,000 lbs.; capacity, 5,000 imp. galls. water, 10 tons coal; style of tank, U shape; wheels—34 in. diameter, wrought iron centre, steel tire; journals, 5½ by 10 in.

The three switching engines for the Intercolonial Ry. which are under construction by the Canadian Locomotive Co., Kingston, Ont., will have the following general dimensions:—

WEIGHT.—In working order, 122,600 lbs., all on drivers.

WHEEL BASE.—Rigid 11 ft.; engine and tender, 39 ft. 0 11-16 ins.

SIZE.—Length, over all, 52 ft. 7¼ in.; width, 10 ft. 2 in.; height, 14 ft. 9⅛ in.

HEATING SURFACE.—Firebox, 138 sq. ft.; tubes 1,304 sq. ft.; total, 1,442 sq. ft.

WHEELS.—Driving, diameter, 51 in.; cast iron centres; journals, 8½ by 10 in.

CYLINDERS.—Diameter, 18 in.; length of stroke, 26 in.

BOILER.—Type, radial stayed; working pressure, 200 lbs.; number of tubes, 239; diameter of tubes, 2 in.; length of tubes, 10 ft. 6 in.

TENDER.—Weight, loaded, 90,000 lbs.; capacity of tank, 3,800 imp. galls.; coal capacity, 6 tons; diameter of wheels, 33 in.; wheels, wrought iron centres, steel tire; journals, 4¼ by 8 in.

The ten 2-8-0 freight locomotives under construction for the C.P.R. at its Angus, Montreal, shops are duplicates of those received from the Canadian Locomotive Co., Kingston; the Locomotive and Machine Co of Montreal, and the American Locomotive Co.'s Schenectady works in 1904. Following are general dimensions:—

WEIGHT.—On drivers, 163,700 lbs.; total, 186,200 lbs.

CYLINDERS.—Diameter, 22½ in.; stroke of piston, 28 in.

WHEELS.—Diameter of drivers, 58 in.; tyres, Krupp crucible; tender, cast iron; wheel centres, cast steel.

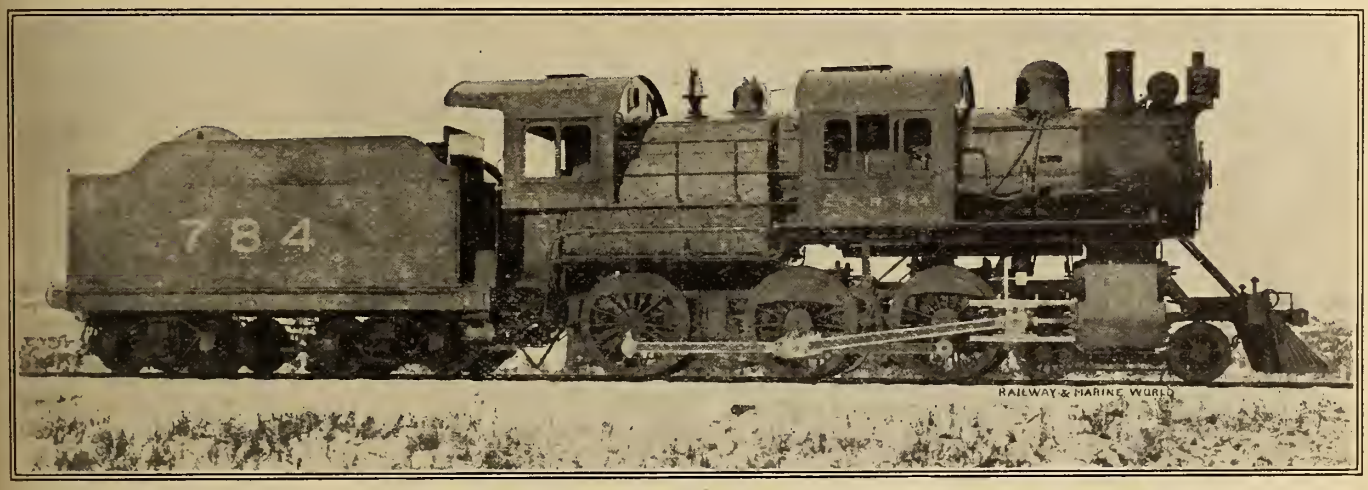
BOILER.—Type, radial stayed wagon top; working steam pressure, 180 lbs.; heating surface, 2,381 sq. ft.; tubes—number, 244 of 2 in. outside diameter, and 22 of 5 in. diameter for superheater; length, 14 ft. 1⅜ in.

FIREBOX.—Length, 96⅝ in.; width, 65¼ in., C.P.R. special; grate area, 43 sq. ft.

TENDER.—Tank capacity, 5,000 imperial gallons, coal, 12 tons.

APPLIANCES, ETC.—Simplex brake beams; C.P.R. standard brake shoes, and journal bearings.

The three straight baggage cars which the C.P.R. is having constructed at its Angus, Montreal, shops are 60 ft. by 9 ft. 10½ ins. over frames, which are to have steel I beams, though no platform is to be used. The trucks will be of 4-wheel standard passenger type with axles, etc., 5 x 9 ins. Simplex brake beams with adjustible heads, M.C.B. brake shoes and brasses, journal boxes, and with elliptic springs, and 36 in. steel tired wheels. The bodies are to be of wood with steel I beams at the ends. A heating system is to be provided, and the lighting is to be by acetylene gas. Cars are to be finished on the outside in British Columbia pine, varnished. Two baggage cars are also being constructed for carrying horses, automobiles, carriages, etc. They are similar to the above, except that they are to have folding stalls for the horses, and are to have large end doors 7 ft. 6 ins. wide, by 8 ft. 0 in. high. This size of door opening necessitates using an arched roof instead of the standard type, ventilation being secured by means of special ventilators in the roof in addition to the usual ventilators near the floor line, and at the ends of the cars. All other particulars of these cars are the same as the first named.



CANADIAN PACIFIC RAILWAY LOCOMOTIVE BUILT AT THE ANGUS SHOPS MONTREAL.

Montreal Warehousing Co.—Following are the directors elected at the annual meeting held March 7 of this subsidiary of the G.T.R.: C. M. Hays, E. H. Fitzhugh, W. M. Ramsay, J. W. Loud, W. Wainwright.

The Canadian Northern Ry. has filed with the Railway Commissioners a copy of supplement 21 to its local passenger tariff, showing fares of 3 cents a mile on its line between Learys and Somerset, Man.; between Hartney and Virden, Man.; and 3½ cents a mile between North Battleford, Sask., and Edmonton, Alta.

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Recent Quebec Legislature.

At the session of the Quebec Legislature, which closed March 9, the following acts affecting transportation interests were passed:

Incorporating the Canadian Eastern Ry.

Ratifying an agreement between the C.P.R. and the Montreal City Council.

Incorporating the Levis County Ry.

Amending the charter of the Mantane and Gaspe Ry.

Amending the acts relating to the Montreal Street Ry.

Incorporating the North-Eastern Ry.

Amending the acts relating to the Quebec and Lake St. John Ry.

Amending the charter of the Quebec and James Bay Ry.

Amending the acts relating to the Quebec and Western Ry.

Respecting the Quebec Central Ry.

Respecting the appropriation of the price of the Quebec, Montreal, Ottawa and Occidental Ry., etc., to the payment of the consolidated debt of the province.

Incorporating the Quebec Northern Ry.

Respecting subsidies to certain railways.

Canadian Northern Ry. Earnings, etc.

Gross earnings, working expenses, net profits, increases or decreases over 1904-05, from July 1, 1905:

	Earnings.	Expenses.	Net Earnings.	Increase or Decrease.
July..	$395,100	$ 252,600	$ 142,500	$ 51,400+
Aug..	357,900	246,200	111,700	12,200+
Sept..	378,500	268,300	110,200	14,000+
Oct..	557,100	298,900	258,200	113,600+
Nov.	566,800	341,700	225,100	68,700+
Dec.	437,800	295,600	142,200	7,100+
Jan.	359,900	260,600	99,300	10,800+
	$3,053,100	$1,963,900	$1,089,200	$277,800+

Approximate earnings for Feb., $301,400, against $214,800 for Feb., 1905.

C.P.R. Earnings, Expenses, etc.

Gross earnings, working expenses, net profits, increases or decreases over 1904, from July 1, 1905:—

	Earnings.	Expenses.	Net Profits.	Increase or Decrease.
July	$4,629,174.95	$2,991,397.29	$1,449,652.14	$188,125.52+
Aug.	4 796,733.98	3,005,088.07	1,791,645.91	263,715.48+
Sept.	4,872,575.38	3,086,565.35	1,776,010.05	507,202.49+
Oct.	5,722,767.30	3,448,696.12	2,274,071.18	707,957.27+
Nov.	5,741,543.12	3,380,232.13	2,316,310.99	691,736.25+
Dec.	5,619,182.83	3,272,599.52	2,346,583.31	683,914.48+
Jan.	4,422,690.96	3,155,456.94	1,267,234.02	844,565.55+
Feb.	4,224,451.76	3,018,707.98	1,205,743.78	903,572.46+
	$40,029,120.28	$25,368,743.38	$14,660,376.90	$9,869,587.40+

DULUTH, SOUTH SHORE AND ATLANTIC RY.—Gross earnings for Jan., $224,126.78; net earnings $66,183.91, against $199,901.29 gross and $59,235.32 net for Jan., 1905. Net earnings for seven months ended Jan. 31, $639,452.79 against $529,168.09 for same period 1904-05. Approximate earnings for Feb., $229,620 against $183,736 for Feb., 1905.

MINERAL RANGE RY.—Approximate earnings for Feb., $55,093, against $52,241 for Feb., 1905.

MINNEAPOLIS, ST. PAUL AND SAULT STE. MARIE RY.—Gross earnings for Jan., $860,705.40; net earnings, $400,417.57, against $662,827.76 gross and $307,423.97 net for Jan., 1905. Net earnings for seven months ended Jan. 31, $3,852,166.61 against $2,771,763.51 for same period 1904-05. Approximate earnings for Feb., $739,240 against $520,199 for Feb., 1905.

Canadian Pacific Railway Land Sales.

	Acres.		Amount.	
	1905-06.	1904-05.	1905-06.	1904-05.
July...	58,477.37	36,425.75	$304,795.23	$177,473.94
Aug...	58,542.44	15,669.90	327,579.63	88,735.88
Sept..	111,479.71	16,470.02	556,642.64	73,642.96
Oct...	79,168.41	23,792.84	412,237.95	104,843.47
Nov..	200,441.36	23,392.88	1,065,512.03	112,261.70
Dec....	52,288.20	32,196.59	282,095.12	142,538.40
Jan....	48,249.38	34,500.41	273,115.75	141,750.50
Feb....	68,658.10	27,503.56	378,807.56	116,278.76
	677,234.99	209,951.91	$3,600,785.91	$957,570.61

Grand Trunk Ry. Earnings, Expenses, etc.

The following statement of earnings, supplied from the Montreal office, includes the G.T. of Canada, the G.T. Western, and the Detroit, Grand Haven & Milwaukee Rys.

	1906.	1905.	Increase.	Decrease.
Jan.....	$2.896.439	$2,674,242	$222,197	....
Feb..... ..	2,602,274	2,268,252	334,022	....
	$5,498,713	$4,942,494	$556,219	....

The following figures relate to the individual lines, and are made out in sterling:

GRAND TRUNK RY. CO.

Revenue for Jan.:

	1906.	1905.	Increase.	Decrease.
Gross receipts....	£460,400	£412,000	£48,400	....
Working expenses	351,400	321,000	30,400	....
Net profit....	£109,000	£91,000	£18,000	....

CANADA ATLANTIC RY. CO.

Revenue for Jan.:

	1906.	1905.	Increase.	Decrease.
Gross receipts	£24,300	£24,200	£ 100	....
Working expenses	23,400	22,400	1,000	....
Net profits....	£ 900	£ 1,800	....	£900

GRAND TRUNK WESTERN RY. CO.

Revenue for Jan.:

	1906.	1905.	Increase.	Decrease.
Gross receipts....	£85,200	£87,000	....	£1,800
Working expenses	76,900	77,400	....	500
Net profit.....	£ 8,300	£ 9,600	....	£1,300

DETROIT, GRAND HAVEN & MILWAUKEE RY. CO.

Revenue for Jan.:

	1906.	1905.	Increase.	Decrease.
Gross receipts....	£ 25,100	£ 26,100	....	£1,000
Working expenses	19,200	18,000	£1,200	....
Net profit....	£ 5,900	£ 8,100	....	£2,200

TRAFFIC RECEIPTS OF THE SYSTEM.

Aggregate from Jan. 1 to Feb. 28:

	1906.	1905.	Increase.	Decrease.
Grand Trunk..	£861,876	£762,699	£99,177	....
Canada Atlantic	48,516	45,714	2,802	...
G. T. Western	168,255	162,276	5,979	....
D. G. H. & M.	51,227	44,894	6,333	....
Total.....	£1,129,874	£1,015,583	£114,291	....

Victoria Rolling Stock Co.

The report of the business of the company for the year ended Feb. 15, 1906, showed that the company have sold £9,800 and $326,000 of series "S" 4% debentures, making, with the amounts previously sold, total sales of £165,400 and $1,270,000. The discount and commission on the debentures sold during the year amounted to $9,753.18, which sum has been written off, leaving the old balance of $56,000 carried forward to be dealt with in future years. This makes a total of $46,478 for discount and commission on series "S" lease written off during the last three years. As mentioned in last year's report the total amount of discount and commission on this lease might properly have been distributed over the whole term of the lease (15 years), but it was thought better to deal with it in this manner. Since the close of the company's year all deliveries of rolling stock included in this lease have been made. During the year outstanding debentures against leases have been reduced by $491,000. The final payments under the following leases have matured and were duly met by the respective railway companies, and conveyances of the rolling stock included in the leases duly executed by this company: Lease Oct. 2, 1895, to the Duluth, South Shore and Atlantic Ry. Co. Lease Feb. 3, 1896, to the C.P.R. and the Duluth, South Shore and Atlantic Ry Co. All other payments maturing during the year have been promptly met. The profit on the year's business after charging up directors' fees, expense account and the above amount ($9,753.18) for discount and commission on debentures sold, is $18,050.54; out of which a dividend of 12% per annum on the paid-up capital stock, amounting to $14,400, has been paid, leaving $3,650.54 carried forward to profit and loss account, which now stands at $107,907.82.

ASSETS.

Obligations on leases	$2,833,932.46
Debentures held by company and accrued interest	286,808.06
Discount and commission on series "S" debentures sold	56,000.00
	$3,176,740.52

LIABILITIES.

Capital stock subscribed.. $600,000.00	
Capital stock paid-up	$ 120,000.00
Debentures outstanding	2,878,000.00
Interest accrued on same	29,910.29
Coupons due and not presented	440.00
Advances against debentures	40,482.41
Balance at credit profit and loss account	107,907.82
	$3,176,740.52

PROFIT AND LOSS ACCOUNT.

Interest paid and accrued on debentures and advances	$171,786.72
Discount and commission on debentures sold Series "S"	9,753.18
Expense account	1,168.86
Directors' fees last year	1,400.00
Dividend account	14,400.00
Balance carried forward	107,907.82
	$306,416.58
Balance at credit Profit and Loss Account, Feb. 15, 1905	$104,257.28
Rents received and accrued on leases and interest on debentures held by company	202,159.30
	$306,416.58

MEMORANDUM *re* ROLLING STOCK.

Original cost of rolling stock held under existing leases	$6,232,568.03
Amount paid in on account by railway companies in addition to interest	3,358,081.42
	$2,874,486.61
Total amount of the company's debentures outstanding	$2,878,000.00

Passenger Fares on the Intercolonial Ry.—A new scale of passenger rates went into force on the Intercolonial Ry., Mar. 1, as follows:

1 mile, 5 cents First Class.
2 miles, 10 cents First Class
3 miles, 10 cents First Class.
From 4 to 200 miles inclusive, 3 cents per mile, First Class, adding to end in 0 or 5.
From 201 to 222 miles inclusive, $6.00 First Class fare.
From 223 to 300 miles inclusive, 2.7 cents per mile First Class, adding to end in 0 or 5.
From 301 to 324 miles inclusive, $8.10 First Class fare.
From 325 to 400 miles inclusive, 2.5 cents per mile, First Class, adding to end in 0 or 5.
From 401 to 417 miles inclusive, $10.00 First Class fare.
From 418 to 600 miles inclusive, 2.4 cents per mile First Class, adding to end in 0 or 5.
From 601 to 654 miles inclusive, $14.40 First Class fare.
From 655 and over inclusive, 2.2 cents per mile First Class, adding to end in 0 or 5.
(2) For Second Class fare charge two thirds (⅔) of the First Class fare, adding to end in 0 or 5.
(3) For return fare charge one and one half (1½) the First Class fare, adding to end in 0 or 5.

For commercial travellers the rate will be 2¼ cents instead of 2 cents, as now, and the 1,000-mile ticket is also advanced from 2 cents to 2¼ cents per mile. Scholars' tickets will remain as at present. Season tickets are abolished, and 10-trip and 55-trip tickets will be issued at a fixed price according to the mileage. The rates and conditions are similar to those in use on the C.P.R. and the G.T.R., viz.: 10-trip tickets valid for one year at a rate of $1.00 for a five mile trip, to $9.80 for a fifty mile trip; and 55-trip tickets available for 30 days for holder only, at $2.75 for a five mile trip, and $16.50 for a fifty mile trip.

The Minister of Railways has decided to change the system of book-keeping and audit now in use on the Intercolonial Ry. to that in use on the C.P.R., the G.T.R., and the Pennsylvania. Rd

The members of the committee to arrange for uniform action in regard to transfer service, in connection with the International Water Lines Passenger Association, are: Buffalo, N.Y., and Cleveland, Ohio—C. E. Markham, A. A. Schantz, W. M. Lowrie; Detroit, Mich.—C. E. E. Ussher, A. A. Schantz and C. F. Bielman.

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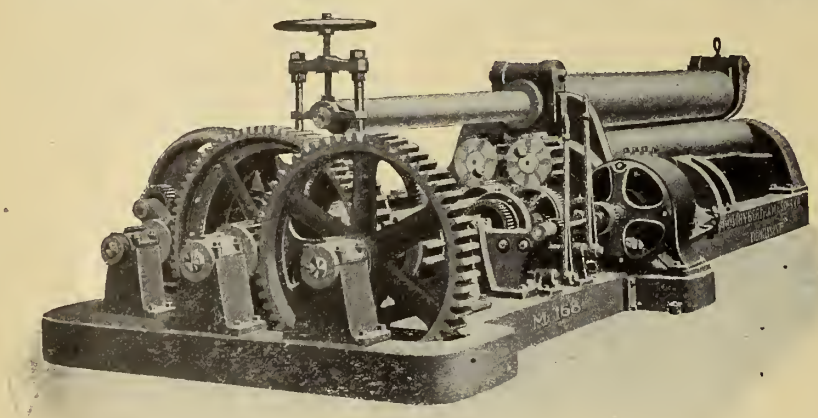

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Dining, Cafe-parlor and Library Cars on day trains. Pullman Vestibuled Sleeping Cars on night trains.

G. T. BELL, General Passenger and Ticket Agent Grand Trunk Railway System **MONTREAL, CANADA**

MAINLY ABOUT PEOPLE.

Sir T. G. Shaughnessy, President C.P.R., sailed from New York, Mar. 23 for England.

Hon. A. McMillan, shipbuilder, Prince Edward Island, died at Wheatley, P.E.I., Mar. 13.

Capt. W. Augustus, Inland Lloyds' Inspector, Kingston, Ont., died there Mar. 16, aged 62.

H. B. Brown, K.C., who died in Sherbrooke, Que., March 8, was counsel for the Quebec Central Ry.

G. Richardson, of J. Richardson & Co., grain dealers, Kingston, Ont., died at Hamilton, Bermuda, Mar. 14.

W. W. Reid, of the Reid Newfoundland Co., left St. John's, Nfld., early in March, and spent some time in Montreal.

W. H. Grant, Manager of Construction, Halifax and South-Western Ry., was married to Miss A. King at Halifax, March 14.

Hon. C. S. Hyman, M.P., Minister of Public Works, has purchased the residence in Ottawa now occupied by J. R. Booth.

R. G. Reid, of the Reid Newfoundland Co., Montreal, is one of the incorporators of the Canada Radiator Co., Lachine, Que.

H. S. Hancock, late chief draughtsman, G.T. Pacific Ry., Winnipeg, has been appointed town engineer at Fort William, Ont.

J. Stewart, Ottawa, has been appointed Commissioner and Chief Engineer of Irrigation for the Provinces of Alberta and Saskatchewan.

Hon. J. S. Hendrie, Hamilton, Ont., has been re-elected Chairman of the Railway Committee of the Ontario Legislature for the current session.

A. Campbell, M.P., Toronto Junction, Ont., has been elected Chairman of the Railway Committee of the House of Commons for the current session.

Hon. A. G. Blair made his first appearance as counsel for the C.P.R. before the Railway Commission, of which he was formerly Chief Commissioner, March 6.

G. E. Major has resigned the managership of the C.P.R. hotel, Chateau Frontenac, Quebec, to take charge of the new Clifton Hotel, Niagara Falls, Ont.

C. W. Spencer, General Manager Mackenzie, Mann & Co.'s Eastern Lines, has been elected a director of the Sterling Bank, a new addition to the banks of the Dominion.

G. E. Brent, who died in Toronto, Feb. 25, aged 80, had within four months completed fifty years' service in the G.T.R. machine shops at Stratford and Toronto.

D. Thorburn, G.T.R. freight agent at Brantford, Ont., has been appointed Assessment Commissioner for the city by the council at a salary of $1,200 a year.

J. M. Egan, at one time General Superintendent of the C.P.R. at Winnipeg, is now President of the Union Depot, Bridge and Terminal Ry. Co., Kansas City, Mo.

Dr. A. G. Bell, the inventor of the telephone, has promised to present one of his early experimental telephones to the city of Brantford, Ont., where the experiments were made.

L. B. Archibald, Superintendent Dining, Sleeping and Parlor Car service, I.C.R., has been elected President of the American Association of Dining Car Superintendents for the current year.

N. J. Holden, of N. J. Holden Co., Limited, Montreal, was among the tenants who were burned out by a fire at the Chesterfield apartment house, Victoria Avenue, Westmount, Quebec, March 4.

Capt. J. B. Cottrell, U.S. Inspector of Hulls, Detroit, Mich., and who was master of the steamers Maruba, Masuba, Maritana, and Victory on their first trips, died at Detroit, Mar. 14, aged 54.

Hon. J. Domville, one of the promoters of the Canada Central Ry., fell on the deck of the Cunard liner Lucania, Mar. 7, while returning from England, and sustained a compound fracture of the leg.

W. Molson Macpherson, agent of the Dominion, Leyland and Manchester lines at Quebec, and Mrs. Macpherson, who have been visiting India, are returning to Canada by way of Colombo and Japan.

G. T. Fulton, Master Mechanic, Lake Superior Division C.P.R., North Bay, Ont., and Travelling Engineer Turner, were somewhat injured by jumping from an engine in a collision at Nairn, Ont., Mar. 12.

Jos. Wallace who resigned his position as General Agent, G.T.R., Hamilton, Ont., about a year ago, on account of ill-health, has considerably improved in health, and has decided to move to the Northwest.

J. M. Herbert, formerly in the G.T.R. service, has resigned his position as Vice-President, Colorado and Southern and Fort Worth and Denver City Rd., and it is reported will engage in business in Denver, Col.

Dr. Page, who has been appointed Chief Medical Officer in connection with immigration matters at Quebec, has also been appointed by the Dominion Government oculist to examine the eyesight of the Quebec pilots.

C. E. Perry, who was engaged in survey and construction work on the I.C.R. and the C.P.R., and who latterly was engaged as District Engineer of District E., National Transcontinental Ry. survey, died at Ottawa, Mar. 16.

A. McGill, dispatcher, Niagara, St. Catharines and Toronto Ry., has been sent for trial on a charge of manslaughter, arising out of a collision on the line between St. Catharines and Thorold, Ont., when a motorman was killed.

The arbitrators appointed to settle disputes between the G.T.R. and the lessees and owners of property expropriated for the new Union Station, Toronto, are: Judge Snider, Hamilton, Ont., Chairman; C. H. Ritchie, K.C.; and W. T. White.

A. Macgowan, who has been appointed Divisional Engineer of the Somerset Ry., Augusta, Me., was formerly engaged in the I.C.R. engineering department, and latterly was engaged in construction work on the Bangor and Aroostook Rd. under P. S. Archibald.

J. J. Smythe, for sixteen years in the office of the Comptroller, Toronto Ry. Co., has been appointed Comptroller of the Electric Ry., Power and Light Co., Rio de Janeiro, Brazil. Before leaving Toronto, he was presented with a gold watch by the staff of the Comptroller's office, Mar. 2.

Sir Wm. Van Horne spent some time during March in England, the first visit he has paid there for eight years. During his trip he was entertained at dinner at the Athenæum Club by Lord Strathcona, and is reported to have added to his collection a portrait by a famous Spanish artist of a Queen of Hungary, valued at $45,000.

W. R. Baker, Assistant to the President C.P.R., left Montreal Mar. 18, for Victoria, B.C., to take charge for the company of the arrangements for the Canadian tour of Prince Arthur of Connaught. The Royal traveller reached Victoria from Japan, Mar. 28; and will remain in Canada until May 12, when he will sail for Liverpool on the Allan Liner Virginian.

M. J. McCarthy was presented with a diamond ring by the employes of the Michigan Central Rd. locomotive shops, St. Thomas, Ont., at a dinner, Feb. 27, on the occasion of his promotion from the position of Master Mechanic at St. Thomas to a similar position at Elkhart, Mich. An address was also presented Mr. McCarthy, and a diamond ring was presented to Mrs. McCarthy.

W. Gormaly, who retired from the position of Superintendent of the Toronto Union Station recently, died in Toronto, March 13, aged 68. He was a native of Castle Douglas, Kircudbright, Scotland, but spent most of his life in Canada. For a number of years he was engaged as a baggageman on the G.T.R., running between Toronto and Detroit, subsequently becoming freight conductor, and later a passenger conductor. In 1880 he was appointed to take charge of the Union Station, and in 1896, when the Union Station Co. was formed, he was appointed its Superintendent. C. Gormaly, G.T.R. commercial agent at St. Louis, Mo., is one of his sons.

Jas. Abbott, Superintendent Canadian Northern Ry., North Battleford, Sask., was born Aug. 13, 1872, and entered railway service 1886, his record being: Sept., 1886, to May, 1887, telegraph messenger C.P.R.; May, 1887, to Aug., 1890, telegraph operator and relief agent C.P.R.; Aug., 1890, to Aug., 1896, dispatcher and relieving Chief Dispatcher, Manitoba and North-Western section C.P.R.; Aug., 1900, to June, 1901, successively operator and train dispatcher, Manitoba division, Northern Pacific Ry.; being appointed Chief Dispatcher when the lines were taken over by the Canadian Northern Ry. He remained as Chief Dispatcher until May, 1905, when he was appointed Acting Superintendent 4th district at Kamsack, Sask., being appointed to his present position when the line was opened to Edmonton, Alta.

E. J. Chamberlin, who was General Manager of the Canada Atlantic Ry. until it passed into the hands of the G.T.R., was entertained at dinner at Ottawa, March 3, by those who had been officials on the line during his managership. On behalf of the officials, M. Donaldson, Superintendent of the Ottawa Division G.T.R. (the former C. A. Ry.), presented Mr. Chamberlin with an illuminated address in book form, bound in morocco, and relieved by paintings of familiar scenes illustrating the progress of the road during the last twenty years. It also included engravings of his private car, his lodge in Algonquin Park, an autograph page, and emblematic drawings of the discovery and application of steam to motive power, and also the uses of electricity in that connection. Accompanying it was a book of photos of the former official staff.

J. H. Rogers who has been appointed Traffic Manager White Pass and Yukon Ry., began his railroad career in the engineering department of the C.P.R. in 1881, when construction was started west of Portage la Prairie, Man., in 1882-83 acting as station agent at Oak Lake and Broadview, Man.; and in 1884 had charge of the material accounts at the front, until the road reached the summit of the Rocky Mountains in 1884; from 1884 to 1887 he was Paymaster and book-keeper for Grant & Ross, contractors on the C.P.R.; and in 1888 re-entered railway service, his record to date being. 1888 to 1890, station agent Great Northern Ry., successively at Benton, Glasgow, Montana, and Minot, N.D.; 1890 to 1893 accountant during the construction of the Great Falls and Canada Ry., and subsequently agent at Great Falls, Mont., and coal distributor; 1893 to 1896, with the Great Northern Ry., as agent at Wenatchee, Wash.; 1896 to 1900, general agent same

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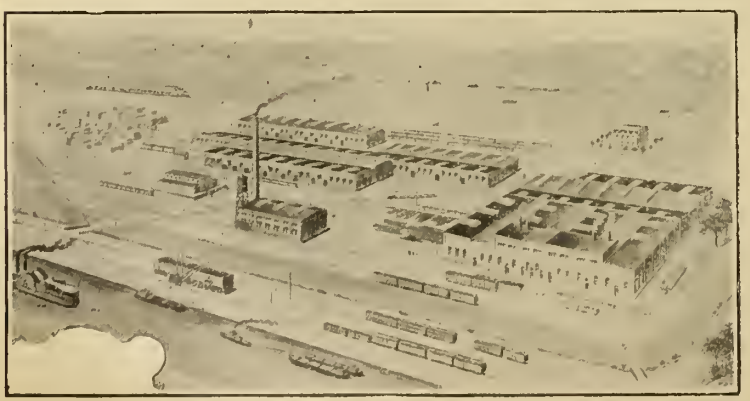

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ORDERS SOLICITED

road, Victoria, B.C.; 1900 to Dec. 31, 1905, with the White Pass and Yukon Route as agent successively at Bennett and White Horse, and latterly as General Agent at Dawson

James J. Hill never lost interest in Canada, says the Toronto Globe, and it is not surprising that despatches have just connected his name with a number of important railroad extensions from his own system, the Great Northern, into the Canadian Northwest. James J. Hill was born near Guelph, Ont., in 1838, of Scotch-Irish descent. Early in life he left the farm to enter business life in Minnesota. His career as a transportation man commenced in 1856 as agent of the Northwestern Packet Co. In 1865 he embarked in the fuel supply and transportation business, establishing in 1870 the Red River Transportation Co., which was the first to open up communication between St. Paul and Winnipeg. In turn he secured control of the St. Paul and Pacific Ry., and reorganized the St. Paul, Minneapolis and Manitoba Ry., being its General Manager from 1879 to 1882. It became part of the Great Northern system in 1890. From 1883 to 1893, Mr. Hill devoted himself to the building of the Great Northern Ry., extending from Lake Superior to Puget Sound, and he is now President of that system, and looking to Canada as the most promising field of development.

F. P. Gutelins, who has been appointed Assistant Chief Engineer, C.P.R. Eastern Lines, was born at Mifflingburg, Pa., Dec. 21, 1864, and graduated at Lafayette College, Easton, Pa., June, 1887. He has had a varied experience in engineering work, his record being: July, 1887, to Dec., 1887, engineer in charge of construction sewer system, Englewood, N.J.; Jan., 1888, to June, 1892, rodman, Assistant Supervisor and Assistant Engineer, Pennsylvania lines; June, 1892, to June, 1893, Engineer in charge Flint Creek Water Power Electric Plant, Butte, Mont.; June, 1893, to Jan., 1894, Engineer in charge of Butte City Water Works; Jan., 1894, to Nov., 1895, general practice in Butte City, Mont.; county surveyor Silver Bow County, Mont., and U.S. Deputy Mineral Surveyor; Nov., 1895, to Mar. 10, 1898, General Superintendent Columbia and Western Ry., Trail, B.C.; Mar., 1898, to Mar., 1900, Superintendent Rossland branch, C.P.R.; Mar., 1900, to Sept., 1901, Resident Engineer, Kootenay section, C.P.R.; Sept., 1901, to July, 1902, Inspecting Engineer, C.P.R.; July, 1902, to date, of present appointment, Engineer Maintenance of Way, C.P.R., Montreal.

The Louisville and Nashville Railroad has extended to the Canadian Ticket Agents' Association the courtesies of its line between Mobile, Ala., and New Orleans, La., in October next, after the holding of the Association's annual meeting in Mobile.

During the ten weeks ended Mar. 3, the G.T.R. received the following rolling stock: 538 box cars, 60,000 lbs., from the Canada Car Co., Montreal; one snow plow built at its own Montreal shops; nine Richmond compound mogul freight locomotives from the Canadian Locomotive Co., Kingston, Ont.

C. Schofield, an engineer, who is an authority on pneumatic riveting, reading a paper at Newcastle-on-Tyne, Eng., before northeast coast engineers, made the interesting prophecy that in a few years every vessel would be self-repairing by reason of a pneumatic outfit she would carry, which would only cost £200. With such an outfit a captain would be able to scale the bottom of the ship, clean the boilers, and generally do small repairs which now require a vessel to be put in the hands of repairers.

Orders by the Railway Commissioners.

The following orders have been issued by the Board of Railway Commissioners:—

917. Feb. 7.—Amending order of Jan. 16 of the Vancouver, Victoria and Eastern Ry. and Navigation Company, application under section 194.

918. Feb. 2. Approving location of the James Bay Ry. through the township of Rama, Ontario county.

919. Feb. 9.—Extending time for use of C.P.R. crossing of G.T.R. at Tottenham, Ont.

920. Feb. 13.—Granting leave to the Canadian Machine Telephone Co. to carry its wires over the tracks of the C.P.R. in Peterborough, Ont.

921. Feb. 9.—Adopting standard specifications in respect of steel bridges and viaducts authorized to be constructed under sec. 203 of the Railway Act, 1903.

922. Feb. 1.—Amending order of Dec. 13, 1905, granting leave to the Red Mountain Ry. to connect its tracks with the tracks of the Columbia and Western Ry.

923. Feb. 13.—Sanctioning location plans of the G.T. Pacific Ry. Lake Superior branch, from mileage 68.18 to mileage 80.11.

924. Feb. 13.—Approving deviation of location of line for the Brandon, Saskatchewan and Hudson's Bay Ry., between sec. 24, tp. 3, range 20 w.p.m. to sec. 18, tp. 6, range 19, w.p.m., Manitoba.

925. Feb. 14.—Authorizing the C.P.R. to divert the highway between concessions 5 and 6, Albion tp., Peel county, Ont., to a point 1-10 of a mile further north, and to carry its line across the diverted highway.

926. Feb. 14.—Sanctioning location of G. T. Pacific Ry. from sec. 21, tp. 25, range 11, west second meridian, Sask., for 49.197 miles.

927. Feb. 14.—Sanctioning location plans of the St. Maurice Valley Ry. between Shawinigan Falls and Grand Mere, Que., 5.68 miles.

928. Feb. 13.—Approving of standard mileage freight tariff no. 10 of the New Brunswick and Prince Edward Island Ry.

929. Feb. 14.—Fixing rate on grain to be charged by the C.P.R. from the company's elevators to unloading sidings within the company's terminals at Owen Sound, Ont.

930. Feb. 16.—Authorizing the C.P.R. to construct a siding to Pelham St., Toronto Junction, Ont.

931. Feb. 15.—Approving, under section 203, of certain bridges on the line of the C.P.R. in Albion tp., Peel county, Ont.

932. Feb. 15.—Approving location plan of line for the Toronto and Niagara Power Co., from the Halton-Wentworth county line to the beach road, Saltfleet tp., 3.2 miles.

933. Feb. 17.—Authorizing the Ontario Power Co. to transmit power along its line at its own risk for a period of 90 days, over the tracks of the various steam and electric railway companies, operating in Stamford tp., Welland county, Ont.

934. Feb. 16.—Authorizing the C.P.R. to construct a siding in Calgary, Alta.

935. Feb. 17—Granting leave to the C.P.R. to divert its existing tracks on Union St., West St. John, N.B.

936. Feb. 20.—Sanctioning location of the proposed railway for the Niagara-Welland Power Co., from Montrose Jct. to Brantford, Ont.

937. Feb. 20.—Granting leave to the G.T.R. to construct a branch line in Welland, Ont., to the premises of the Plymouth Cordage Co.

938. Feb. 20.—Approving location of the line of the Toronto and Niagara Power Co. from Water St. and Beach Road, to the Halton-Wentworth county line.

939. Feb. 20.—Sanctioning location of the line of the Toronto and Niagara Power Co. from Water St., Burlington, Ont., to the intersection of Water St. and Beach Road.

940. Feb. 20.—Approving location of the line of the Toronto and Niagara Power Co., near the Beach road adjoining the Halton-Wentworth county boundary.

941. Feb. 19.—Directing that the C.P.R. furnish certain facilities for transfer of traffic to T. D. Robinson & Son, of Winnipeg, Man.

942. Feb. 21.—Sanctioning location of the G.T. Pacific Ry. from tp. 28, range 19, west second meridian to the north line, tp. 31, range 26, west second meridian, Sask., mileage 49.197 to mileage 100.298.

943. Feb. 21.—Sanctioning location of G.T. Pacific Ry. from mileage 100.298 to mileage 153.60, at the Qu'Appelle, Long Lake and Saskatchewan Ry.

944. Feb. 20.—Approving plans of bridge over the Souris River, Man., for the Brandon, Saskatchewan and Hudson's Bay Ry.

945. Feb. 22.—Approving by-law of the Vancouver, Westminster and Yukon Ry., authorizing H. H. Adams, Traffic Manager, to prepare and issue tariffs of tolls.

946. Feb. 22.—Authorizing the C.P.R. to open its Lacombe branch for traffic from mileage 25 to mileage 50.

947. Feb. 21.—Shortening time within which the G.T.R. is to reply to an application of the C.P.R. to cross the former company's tracks near Utopia Station, Ont.

948. Feb. 21.—Directing the G.T.R. Co. to answer the application of the C.P.R. for an extension of time for putting in an interlocking plant and appliances at the crossing of the G.T.R. Collingwood branch at Utopia by its Sudbury branch, now under construction.

949. Feb. 21.—Making a similar order on the application of the C.P.R. to cross the G.T.R. Midland branch near Coldwater, Ont., with its Sudbury branch.

950. Feb. 21.—Making a similar order on the application of the C.P.R. to cross the G.T.R. Penetang branch with its Sudbury branch.

951. Feb. 21.—Making a similar order on the application of the C.P.R. to cross the G.T.R. line at Alliston, Ont., with its Sudbury branch.

952. Feb. 16.—Authorizing the C.P.R. to construct a branch line in Montreal.

953. Feb. 8.—Directing the C.P.R. to complete the highway bridge over the Guelph and Goderich Ry. at mileage 64.5, Hullett tp., Huron county, Ont.

954. Feb. 13.—Authorizing the C.P.R. to construct a spur line across Portland St., St. John N.B.

955. Feb. 14.—See next page.

956. Feb. 27.—Authorizing the C.P.R. to construct a bridge across the Ottawa River at St. Anne de Bellevue, Que.

957. Dec. 7.—Authorizing the council of Raleigh tp., Kent county, to carry culverts, etc., in connection with the Four Rod Drain under the tracks of the Pere Marquette Rd.

958. Dec. 7.—Authorizing the council of Raleigh tp., Kent county, to carry culverts, etc., in connection with the Miller, Fuce and Waddick drain under the tracks of the Pere Marquette Rd., and the Michigan Central Rd.

959. Feb. 27.—Authorizing the proprietors of the electric light system to carry its wires across the C.P.R. at two points in the town of St. Lin, Que.

960. Mar. 1.—Authorizing the Brandon, Saskatchewan and Hudson's Bay Ry. to

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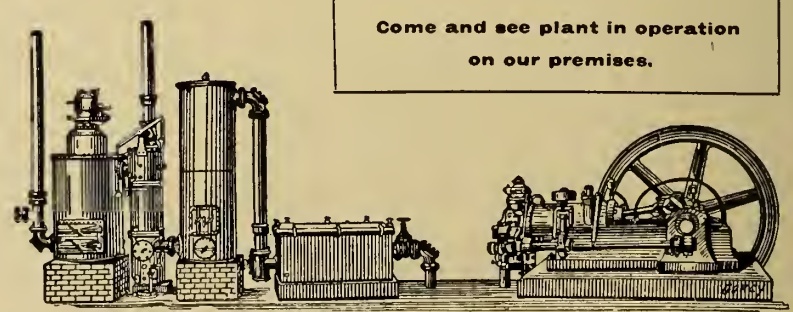

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carry its line across the highway at three points in the municipality of Whitehead, Man.

961. Mar. 1.—Sanctioning location of the G.T. Pacific Ry. Lake Superior branch, from the limits of Fort William to the terminals south of the Kaministikwia River, mileage 18.708 to 23.480 east of Kakabeka.

962. Mar. 1.—Approving deviation from the previously authorized line of the Brandon, Saskatchewan and Hudson Bay Ry., from sec. 17, tp. 10, range 19, w.p.m., to 34th St., Brandon, Man.

Railway Commissioners' Freight Orders.

Feb. 14. In the matter of the application of the Columbia and Western Ry. Co. and the C.P.R. Co., lessee of the Columbia and Western Ry., under sec. 257 of the Railway Act, 1903, for an order disallowing the tariff of the Red Mountain Ry. Co., filed Oct. 3, 1905, as C.R C. no. A.33, on the ground that the said tariff is unjust and unreasonable, and restoring tariff C.R.C. no. A.30 of the R.M.R. Co. in lieu thereof, or for such other order as may be proper, filed with the Board under reference 17847, file no. 5. Upon hearing counsel for the applicant companies and the R.M.R. Co., the evidence adduced, and what was alleged; and upon reading the order of the Board dated Nov. 3, 1905, made upon the said application, which, by its terms, was to come into force immediately and to remain in force until the hearing of the said application or until Nov 15, 1905, whichever should first occur, and by which order the tariff C.R.C. no. A.33 of the R.M.R. Co. was disallowed and in lieu thereof tariff C.R.C. no. A.30 of the R.M.R. Co. was prescribed for the services therein mentioned, and in which order was embodied an undertaking of the applicant companies to abide by and obey any order of the Board for the payment of such tolls or rates as the Board might fix upon the traffic to which such tariff referred, carried during the suspension of said tariff C.R.C. no. A.33; and upon reading the further order of the Board dated Nov. 14, 1905, extending until further order, the order dated Nov. 3, 1905, and embodying a similar undertaking to that above described; and upon the report of the Chief Traffic Officer of the Board—

The Board doth order that the Red Mountain Ry. Co.'s rate for switching cars containing through freight traffic to and from the present point of interchange between the R.M.R. Co.'s and the Columbia and Western Ry.Co.'s track, knownas "Transfer Junction," and from or to all points reached by the tracks of the R.M.R. Co. on the Black Bear High Line and Low Line; also points west of the junction of the main line and the Lower Black Bear Line, including the White Bear Mine, be fixed at $3.50 per carload, regardless of weight, no extra charge to be made for the haulage of the empty cars in either direction. That the Columbia and Western Ry. Co.'s, or the C.P.R. Co.'s rate for switching cars containing through freight traffic between the said junction and all points reached by the tracks of the Columbia and Western Ry. in the town of Rossland, including the War Eagle and Centre Star mines, be fixed at $3.50 per carload, regardless of weight, no extra charge to be made for the haulage of the empty cars in either direction. That the Columbia and Western Ry. Co. and the C.P.R. Co. do forthwith, jointly or severally, pay to the Red Mountain Ry. Co. the excess, if any, of the amount which would be made up by allowing to the R.M.R. Co. the rate fixed by this order for the switching by the said R.M.R. Co. of cars containing through freight between the points mentioned therefor in this order from the time at which the R.M.R. Co. put in force the said tariff C.R.C. no. A.33 until the coming into force of this order over the amount made up of the sums actually paid by the Columbia and Western Ry. Co. for such service during the said period. (955).

INTERSWITCHING AT LONDON.

Under date Mar. 17, the Commissioners issued an order granting permission to the G.T.R. to appeal to the Supreme Court of Canada against the order of the Board of July 25, 1905, fixing rates for the receipt, forwarding and delivery of traffic from and to the C.P.R., and other lines at London, Ont. The statement of facts as agreed upon between the companies is made a part of the order.

DEFINING OWNER'S RISK.

An order will shortly be issued, the Ottawa correspondent of the Toronto Globe stated Mar. 19, by the Railway Commission dealing with goods carried at owner's risk. As a result of a joint conference between the Railway Commissioners, members of the Canadian Manufacturers' Association, and representatives of the railway companies, it has been decided that "owner's risk" must be defined in each bill of lading. Owner's risk, however, will not include carelessness on the part of the railway companies or its employes. For such the company will be held responsible. Then it has been settled that some two hundred odd articles shall be removed from classification at owner's risk, and placed under "carrier's risk." If a shipper of any goods in the remaining classes desires to have them sent at "carrier's risk," he will only pay a 25 per cent. advance instead of 50 per cent. as heretofore. The beekeepers have had some of their requests to the Railway Commission granted. This means that some products will be transported under other classifications at reduced rates. Their application to have bees in hives shipped by the carload has been refused, not being considered feasible. The manufacturers of cream separators will also have their wares sent at reduced rates under the new classification.

Joint Stock Bookkeeping, by J. W. Johnson, F.C.A., Vice-President of the Chartered Accountants of Ontario, and Principal of the Ontario Business College, Belleville, Ont., has reached its 12th edition. The volume extends to 189 pages and contains a mass of matter valuable to those interested in joint stock companies, either as shareholders, officers or employes. It opens with a definition of joint stock companies, contrasts them with ordinary trading partnerships, and shows some of their advantages and disadvantages, then proceeds to show how a company is incorporated, reproduces the Dominion Acts on the subject, and an analysis of the Ontario Acts. A guide to the use of the system of bookkeeping is given, and this is followed up by an illustration showing the incorporation and transactions of a fictitious company—the Ontario Transportation Co. of Belleville, (Limited), in which the different books required to be kept are described, and the why and wherefore of the different records are explained. The book also contains sections showing the application of the system to mining and other companies; the transfer of a business from private ownership to a joint stock company; information as to bond issues; auditing; questions and answers elucidating various points submitted by company bookkeepers. The book is accepted as a standard on the subject, and is of great value to all who are in any way connected with the conduct and control of joint stock corporations. The book is published by the Ontario Business College, Belleville, Ont.; the price being $1.75.

The Canadian General Electric Co. has issued a booklet describing the Edison primary battery which it is selling.

TRADE AND SUPPLY NOTES.

The matter which appears under this heading is compiled, in most cases, from information supplied by the manufacturers of, or dealers in, the articles referred to, and in publishing the same we accept no responsibility. At the same time we wish our readers to distinctly understand that we are not paid for the publication of any of this matter, and that we will not consider any proposition to insert reading matter in our columns for pay or its equivalent. Advertising contracts will not be taken with any condition that accepting them will oblige us to publish reading notices. In other words, our reading columns are not for sale, either to advertisers or others.

F. H. Hopkins & Co., Montreal, have issued a classified list of tools and machinery for all forms of construction work, railroad, mill and contractors' supplies handled by them.

The Trussed Concrete Steel Co. has issued a booklet entitled "Tests," which gives a large number of interesting facts regarding reinforced concrete and the Kahn trussed bar.

The Locomotive and Machine Co. has received an order for a 4-wheel saddle tank locomotive, cylinders 14 by 22 in., from the Canada Car Co., Montreal, for delivery June 15.

J. F. Scott has been appointed Superintendent of the Canada Car Co.'s works at Montreal, succeeding Jas. Coleman, who has returned to his former position of Master Car Builder, Central Vermont Ry., St. Albans, Vt.

The Polson Iron Works, a company incorporated under the Dominion Companies' Act, has been registered in Ontario under the act respecting the licensing of extra-provincial corporations, F. B. Polson being appointed its attorney.

The Dominion Dump Car Co., Montreal, has issued a calendar, on which is illustrated the side and end elevations of the company's cars, together with cuts showing the car as an ordinary gondola car; the side dump and the centre dump unloading action.

A dividend of 6% was declared at the annual meeting of the shareholders of Rhodes, Curry & Co., Amherst, N.S., Feb. 28. Following are the officers and directors for the current year: President, N. Curry; Vice-President, N. A. Rhodes; other directors: J. C. Robertson, Springfield, Mass.; B. F. Pearson, Halifax, N.S.; G. T. Hillson, J. R. Douglas, V. G. Curry. The latter is a new director, replacing Hon. T. R. Black, deceased.

The Montreal Steel Works reported net earnings for 1905, after providing for all contingencies, of $120,798.37. Four quarterly dividends on the preferred stock at the rate of 7%, amounting to $56,000, had been paid at due dates. There was at the credit of profit and loss account $101,469.06, out of which a dividend at the rate of 7% has been declared for 1905 on the common stock. It is proposed to issue at once at par $100,000 additional common stock.

The plans of the Dominion Steel Car Co., so far as they have been completed, provide for the erection at Montreal of a main car shop about 150 ft. by 500 ft. The building will be divided into two bays spanned by two 75 ft. trusses, both of the same construction, and traversed by a 10-ton electric travelling crane, 71 ft. 9 in. span. At one end of this main car shop and at right angles to it will be a crane runway carrying a 10-ton electric travelling crane for handling material in steel yard. The steel work in the building will approximate 700 tons.

The Dominion Steel Car Co., Ltd., which has recently been incorporated with a capital of $500,000, is about to increase its capital to $750,000, the original amount authorized having been largely oversubscribed. The officers are:—President, W. W. Kelley, Chicago; 1st Vice President, W. W. Butler, New York; 2nd Vice President, R. P. Lamont, Chicago; 3rd Vice President, G. E. Scott,

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ST. LOUIS, 1904

In the United States 170 railroads have equipped over 25,500 cars with Pintsch Light. In the World more than 135,000 cars, 6,000 locomotives and 1,800 buoys are using Pintsch Light, the test of experience having proven it the most economical, safe and reliable system for car lighting. Pintsch Gas Buoys adopted as standard by the United States Lighthouse Board. Highest awards taken at World's Expositions at Moscow, Vienna, St. Petersburg, London, Berlin, Paris, Chicago, Atlanta, Buffalo, and now St. Louis.

SAFETY HEATING SYSTEMS RECEIVED THE HIGHEST AWARD

Practical service for the past 18 years has demonstrated the reliability, efficiency and adaptability of the Safety Systems of Direct Steam and Hot Water Heating which are being applied in large quantities to railroad equipment. Straightport couplers. Automatic Steam Traps. 140 Railroads are using these devices, applied on 16,000 cars. Standard on Pullman cars.

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Chicago. All the foregoing are officers either of the American Steel Foundries Co., or the Simplex Railway Appliance Co. Three Canadian directors in addition will constitute the board. Treasurer, J. A. Lamont, Montreal; Secretary, A. H. Chave, Montreal. The company's works and offices will be at Blue Bonnets, a short distance west of Montreal, and will be devoted to building steel cars and steel underframing. J. A. Lamont will have charge of the construction of the works which will be gone on with at once. The construction of steel and concrete will be of the most substantial character.

TRANSPORTATION APPOINTMENTS.

Bay of Quinte Ry.—J. E. Robitaille, Chief Accountant and Travelling Auditor, has been appointed Car Service Agent of the B. of Q. Ry., and the allied companies, Thousand Islands Ry., and Oshawa Ry.

Canadian Pacific Ry.—C. B. Brown has been appointed Division Engineer, Atlantic Division, succeeding J. H. Barber, transferred.

F. P. Gutelius, heretofore Engineer of Maintenance of Way, has been appointed Assistant Chief Engineer, with immediate charge of engineering and maintenance of way on the Company's Eastern Lines. Office, Montreal.

A. L. Hertzberg, heretofore Division Engineer, Ontario Division, Toronto, has been appointed Engineer of Maintenance of Way, all lines, succeeding F. P. Gutelius, promoted. Office, Montreal.

J. H. Barber, heretofore Division Engineer, Atlantic Division, St. John, N.B., has been appointed Division Engineer, Eastern Division, succeeding J. M. R. Fairbairn, transferred. Office, Montreal.

G. J. Major, Manager of the Chateau Frontenac, Que., has resigned, and J. H Phillips is in charge temporarily, being succeeded temporarily at the Place Viger, Montreal, by A. Allerton.

J. M. R. Fairbairn, heretofore Division Engineer, Eastern Division, Montreal, has been appointed Divisional Engineer, Ontario Division, succeeding A. L. Hertzberg, promoted. Office, Toronto.

A press report stated that J. W. Nolan, assistant chief telegraph operator C.P.R., Union Station, Toronto, has been appointed road agent, Ontario Division, and had been succeeded by W. J. Blaney, but we were officially advised Mar. 26, that there had been no change whatever in the position of the two employes named.

A reorganization has been effected in the freight and passenger department representation of the C.P.R., and its U.S. subsidiaries, the Duluth, South Shore and Atlantic Ry., and the Minneapolis, St. Paul and Sault Ste. Marie Ry., at Buffalo, N.Y. R. A. Burford, heretofore city passenger and freight agent C.P.R., and passenger agent M. St. P. and S.S.M. Ry., will in future devote himself exclusively to the passenger business of the three lines.

W. S. Nevins, heretofore Travelling Freight Agent M. St. P. and S.S.M. Ry., is reported to have been appointed District Passenger Agent for the three lines with headquarters at Buffalo. He will have charge of the city business in Buffalo, previously handled by R. A. Burford; and of the outside business on the Niagara Frontier.

C. Richardson, heretofore Travelling Freight Agent C.P.R., is reported to have been appointed Travelling Passenger Agent for the three lines.

G. C. Wilson, heretofore with the Lehigh Valley Fast Freight Line is reported to have been appointed chief clerk to the District Freight Agent.

We were, however, advised Mar. 23, that it had not been decided what the titles of the various officials are to be, consequently the information given in the Buffalo papers, as above, is somewhat premature.

W. Taylor, late of the Great Western Ry. System of hotels, England, has been appointed Manager of the new C.P.R., Winnipeg.

C. A. Cotterell, heretofore train dispatcher C.P.R., Fort William, Ont., has been appointed Chief Train Dispatcher there, succeeding A. Hatton.

W. Bell has been appointed Assistant Superintendent Sleeping, Dining and Parlor Cars, and News Service, Western Lines, with headquarters at Winnipeg. He will have supervision over the Sleeping, Dining and Parlor Cars, and News Service, on Western Lines and will report to the Superintendent of Transportation at Winnipeg.

F. T. Anderson has been appointed Inspector of Agencies, Western Lines, succeeding C. Hood, transferred. He will report to the Superintendent of Transportation, sending copies of his reports to the respective superintendents for action. Office, Winnipeg.

R. J. Lydiatt has been appointed Inspector of Train Service, Western Lines. He will report to the Superintendent of Transportation sending copies of his reports to the respective superintendents for action. Headquarters, Winnipeg, Man.

Chas. Hood has been appointed Freight Claims Agent of the Central Division, vice R. E. Larmour, transferred. Office at Winnipeg, Manitoba.

J. E. Ryan, heretofore Assistant Chief Train Dispatcher, Brandon, Man., has been appointed Assistant Chief Train Dispatcher, Winnipeg, Man, succeeding E. G. Trump, assigned to other duties.

J. T. Barnes has been appointed Assistant Chief Dispatcher, at Brandon, Man., succeeding J. E. Ryan, transferred.

J. N. Brooks has been appointed Freight Claims Agent, Western Division. Office at Calgary, Alberta.

E. V. Dangerfield, heretofore baggage master, New Westminster, B.C., is reported to have been appointed travelling baggage agent with headquarters at Calgary, Alta.

S. C. Sykes has been appointed District Superintendent Sleeping, Dining and Parlor Cars and News Service, Pacific Division, with headquarters at Vancouver, B.C. He will report to Assistant Superintendent Bell, Winnipeg, Man.

J. Halstead is reported to have been appointed Freight and Passenger Agent C.P.R., at Tacoma, Wash., succeeding J. W. Draper, promoted.

Central Vermont Ry.—Jas. Coleman, who in Feb., 1905, resigned the position of Master Car Builder, to become Superintendent of the Canada Car Co.'s shops, Montreal, has been appointed to his former position; and A. Buchanan, who, during the past twelve months has been Superintendent of Motive Power and Car Department, will in future devote his entire time to the motive power department with his former title of Superintendent of Motive Power. Both these officers have their offices at St. Albans, Vt.

Dominion Steamship Line.—M. A. Overend, formerly Foreign Freight Agent Canada Atlantic Ry., has been apointed Western Freight Agent, Dominion Steamship Line, at Toronto, succeeding E. T. Boland. His territory will be Western Canada and he will only represent the Portland service.

Grand Trunk Ry.—H. M. Morgan, heretofore ticket agent at Detroit, Mich., has been appointed city passenger and ticket agent at Buffalo, N.Y., succeeding C. L. Coon, deceased.

G. J. Bishop, heretofore Master of Bridges and Buildings, Western Division, Durand, Mich., having resigned T. T. Irving, Resident Engineer, will, in addition to his other duties, assume charge of the Bridges and Buildings Department. Office, Detroit. All reports and correspondence pertaining to the Bridges and Buildings Department will, until further notice, be addressed to Durand, Michigan, as heretofore.

The following agents were appointed during Feb.: Delhi, Ont., W. D. Barnes; Fort Erie, Ont., G. R. Layher; Admaston, Ont., J. O'Leary (Caretaker).

Great Lakes and St. Lawrence Transportation Co.—Capt. D. Sullivan, Chicago, Ill., who is Lake Michigan Agent of the fleet of the United States Steel Corporation, has been appointed Manager of the G. L. and St. L. T. Co., succeeding Capt. Wolvin.

Halifax and South-Western Ry.—P. Mooney, heretofore chief clerk in the Traffic Department, Great Northern Ry. of Canada, has been appointed District Freight and Passenger Agent, H. and S.W. Ry., at Halifax, N.S.

Intercolonial Ry.—E. A. Williams, the recently appointed chief of police on the I.C.R., took charge of his new duties Mar. 1. A Moncton report states that Geo. Skeffington, the former chief, who was said to have been summarily dismissed, has been granted three months' absence without pay, when he will be retired.

Lake Ontario and Bay of Quinte Steamboat Co.—H. H. Gildersleeve has been elected President succeeding the late C. F. Gildersleeve in that capacity.

E. E. Horsey, heretofore Traffic Manager, has been appointed General Manager, succeeding the late C. F. Gildersleeve in that capacity. He will, however, retain the charge of the Passenger and Freight Departments. Office, Kingston, Ont.

National Transcontinental Ry.—C. F. Hannington has been appointed Acting District Engineer, District E., succeeding the late Capt. Perry.

Toronto Union Station.—Jas. Walch, baggage agent G.T.R., Windsor, Ont., has been appointed general baggage agent, Toronto Union Station.

National Transcontinental Railway.

The last day for receiving tenders for the three districts of the Eastern Division of this railway, which is to be constructed by the Dominion Government, acting by the Commissioners of the National Transcontinental Ry., was Mar. 12, when a number of tenders were put in. The G. T. Pacific Ry. Co., it is understood, tendered for the whole of the mileage offered; other contractors tendered for one or other of the districts, and several tenders were put in for the 3,000 ft. steel superstructure for the viaduct at Cap Rouge. The sections of line for which tenders were asked are: District B, from near the Quebec Bridge, now under construction by the Quebec Bridge and Ry. Co., to near La Tuque, Que., about 150 miles; District F., from near Winnipeg, Man., to Peninsula Crossing, Ont., near the junction point of the Lake Superior branch of the G. T. Pacific, about 245 miles. Nothing had been decided up to the time of writing, Mar. 28, as to which tender or tenders would be accepted.

GRAND TRUNK PACIFIC RAILWAY.

Under its act of incorporation the G.T. P. Ry. Co. is authorized to issue $20,000,000 of preference stock. At the current session of the Dominion Parliament application will be made for an act to amend the section dealing with the issue of preference stock and substituting therefor debenture stock to the amount of $25,000,000.

The section of the line for which the Canadian White Co., Montreal, has secured

The Kahn Trussed Bar

The Backbone of Modern Reinforced Concrete Construction.

Trussed Concrete Steel Co. Detroit, U.S.A.

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Machinists' Hammers
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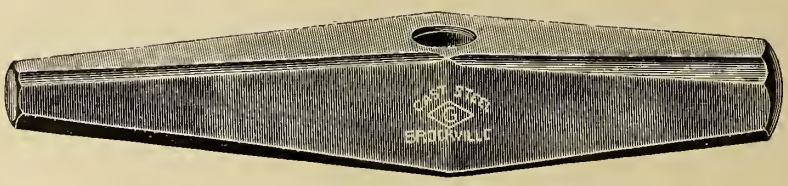

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a contract from the G.T. Pacific Ry., extends from the Touchwood Hills, Man., where the McDonald, McMillen Co.'s contract ends, to about three miles west of Saskatoon, Sask., about 140 miles. The country is rolling prairie land, and the work will consist principally of grading. There will be approximately 3,000,000 cubic yards of excavating to handle. On account of the high-class road that the G.T.P. is constructing, with a maximum grade of 4-10, the grading runs heavier than in ordinary prairie country, and will average over 20,000 cubic yards per mile. There are no stream crossings of importance, and the few there are will be bridged by the contractors. At Saskatoon, however, the Saskatchewan River will be crossed at an elevation of 75 ft. above water level, and at this point the valley is 1,500 ft. wide. The work will be started as soon as possible, and it is to be completed on or before Nov. 1. Construction headquarters will be located at Saskatoon, J. W. Harris, C.E., being Engineer in charge. The General Manager, F. H. Alfred, (formerly Chief Engineer of the Pere Marquette Rd., Detroit, Mich.,) will have general charge and direction of the work. It is intended to sublet a portion of this work, but most of the work will be done by the company's own plant.

The contractors for the Saskatoon, Sask.-Edmonton, Alta., construction, 450 miles, are Foley Bros, Larson & Co., who are also constructing the Lake Superior Branch from Fort William to the junction with the Government section of the line easterly from Winnipeg. The work will be in charge of J. W. Stewart on behalf of the contractors, and his headquarters for the present will be at Kenora, Ont., where the contractors are working on the C.P.R. second track work between Fort William, Ont., and Winnipeg, Man.

Railway Legislation in Ontario.

The Ontario Government has laid before the Legislature a lengthy bill, having for its purpose the consolidation of the acts relating to steam, electric and street railways. The bill was introduced by Hon. J. S. Hendrie, who had charge of its preparation, and who has been re-elected chairman of the Sessional Committee on Applications for Railway Legislation. The bill extends to 112 pages, and has 267 sections. It provides for the repeal of the whole of nine existing acts, and sections of other acts, and incorporates sections from the various existing acts, and the Dominion Railway Act. In connection with this another bill has also been introduced by Mr. Hendrie, providing for the appointment of a Railway and Municipal Board for the Province. The consideration of these Government bills has brought about the postponement of the consideration of the annual bills dealing with fenders, and the holding up of certain clauses in a number of general railway bills. The two Government bills are to be discussed at a meeting between representatives of the municipal authorities and the Government, with a view of ascertaining the views of the city, town and township authorities on the different sections affecting them. The bills are important ones, and may be considerably amended as a result of the discussion with the municipal authorities and in passing through committee.

C.P.R. Betterments, Construction, Etc.

Atlantic Division Surveys.—We are advised that only a preliminary survey is being made between Debec, near Woodstock, N.B., and Bancroft, Me., and that nothing can at present be said as to what the company's intentions definitely are. (Mar., pg. 137).

Eastern Division Betterments.—We are advised that it is proposed to construct a second track alongside the present one between St. Annes and Vaudreuil, Que., three miles. The bridges on the line between St. Annes, Que., and Smith's Falls, Ont., 108 miles, are to be put into a condition to carry a second track when it is decided to carry one through to the latter point.

Western and Central Division Construction.—We have been advised that the new construction work to be undertaken on these divisions during the current season, includes the carrying out of some further grade reduction on the main line, on the Medicine Hat section; the completion of the branch from Reston, Man., to Wolseley, Sask.; a branch from Teulon, Man., northerly for 10 miles; a branch from Saskatoon, Sask., westerly for 34 miles, and the completion of the branch easterly from Wetaskiwin, Alta., from mileage 50 to mileage 100. The following new work has also been authorized, but it is not yet decided just how soon it will be put in hand: a branch from Winnipeg Beach to Gimli, Man.; an extension of the line westerly from Shebo, Sask., for a further 37 miles; an extension of the line northerly from Strassburg, Sask., for 40 miles; and a branch easterly from Saskatoon, Sask., for 40 miles.

Rossland Transfer Track.—The transfer track connecting the Rossland branch of the C.P.R., and the Red Mountain branch of the Great Northern Ry., N.S., is 1,106 ft. in length, and is practically laid to the grade of Third Avenue, Rossland, B.C., along which it runs. The line crosses at grade Spokane and Washington streets.

Canadian Steam Railways in 1904-05.

The number of steam railways in actual operation, including the two government roads, the I.C.R. and the Prince Edward Island Ry., at the close of the fiscal year, June 30, 1905, was 194; some of these, however, are amalgamated or leased, making the total number of controlling companies 91, not including the government railways. The number of companies absorbed by amalgamation was 56, and the number of leased lines was 39. The number of miles of completed railway was 20,601, an increase of 990 miles, besides 3,632 miles of sidings. The number of miles laid with steel rails was 20,533, of which 838 miles was double track. The number of miles in operation was 20,487. The paid-up capital amounted to $1,248,666,414, an increase of $62,119,496. The gross earnings of the year amounted to $106,467,199, an increase of $6,247,763, and the working expenses aggregated $79,977,574, an increase of $5,414,412 compared with those of the previous year; leaving the net earnings $26,489,625, an increase of $833,351. The number of passengers carried was 25,288,723, an increase of 1,647,958, and the freight traffic amounted to 50,893,957 tons, an increase of 2,796,438 tons. The total number of miles run by trains was 65,934,114, an increase of 4,622,112. The rolling stock comprised: For passenger service 2,338 cars; for freight service 86,992, including 57,229 box and cattle cars; and for operation and maintenance service 4,831, making a total of 94,161 cars. Of these, 78,178 were equipped with air-brakes, and 85,381 were fitted with automatic couplers, an increase of 4,796 over the previous year. The locomotives numbered 2,906. The accident returns show a total of 468 persons killed, 35 being passengers, 206 employes and 227 others, and, in addition, 1,357 injured, of whom 244 were passengers, 919 employes and 194 others. By train collisions and derailments 16 passengers, 31 employes and 2] others were killed, and 143 passengers, 121 employes and 9 others were injured. Through jumping on or off trains or engines in motion, 7 passengers, 10 employes, and 12 others were killed, and 52 passengers, 95 employes, and 27 others were injured. Through walking, lying or being on the track, 1 passenger, 43 employes and 135 others were killed, and 1 passenger, 52 employes, and 55 others were injured. Through falling from cars or engines, 8 passengers, 45 employes, and 13 others were killed, and 15 passengers, 138 employes, and 13 others were injured. Through being struck by engines or cars at highway crossings, 2 employes and 57 others were killed, and 3 employes and 64 others were injured. In the work of coupling cars, 27 employes were killed, and 102 employes and 1 other were injured, a total of 130, as against 178, 211, 241, 290 and 363 in the five preceding years, respectively; a very satisfactory testimony to the efficiency and value of the automatic car coupler, now, happily, growing in general use. By the Railway Act, 1903, section 211 (c), railway companies are required to provide and use in their engines and cars "couplers which couple automatically by impact, and which can be uncoupled without the necessity of men going in between the ends of the cars." They were allowed, however, until Jan. 1, 1906, for fitting with such couplers cars built prior to the passage of the act.

Railway Finance, Meetings, etc.

Canadian Northern Ry.—The Manitoba Legislature at its current session passed an act authorizing the guarantee of bonds to the extent of $10,000, under the conditions mentioned in the C.N. Ry. Act of 1904, in respect of the following lines: for 35 miles to near Deloraine; from Oakland westerly and northwesterly for 50 miles to sec. 36, tp. 17, range 10, w.p.m.; and from Oak Point northerly and northwesterly for 35 miles.

A return published in Minnesota shows that the gross earnings on the mileage of the company's main line in Minnesota, from the Ontario boundary near Rainy River, to the Manitoba boundary near Warroad, about 44 miles, was $255,142.10, against $198,039.56. The taxes paid to the State for 1905 amounted to $10,205.68, against $1,980.39 for 1904.

Canadian Pacific Ry.—A cheque for $7,000,000 was paid to the Quebec Government Mar. 1, by the company to discharge the purchase price of the Quebec, Montreal, Ottawa and Occidental Ry., which was purchased in 1882. The Quebec Legislature has authorized the use of the money to pay off various provincial loans.

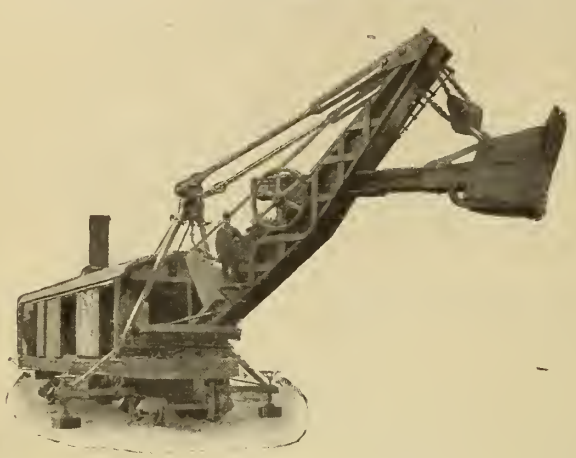
The shareholders at a special meeting authorized the issue of a further $20,000,000 of common stock to holders at the closing of the books, April 20, in the proportion of one share of new stock to five of old stock, at par.

Pere Marquette Rd.—At a meeting of shareholders held at Detroit, Feb. 27, a committee was appointed to investigate the 999-year lease to the Cincinnati, Hamilton and Dayton Rd., and report at the annual meeting to be held in May. N. Thayer, W. W. Craps, M. T. Cox, G. H. Norman, F. R. Hart, were appointed the committee.

Qu'Appelle, Long Lake and Saskatchewan Ry. and Steamboat Co.—Net earnings for Jan., $145.15, against $4,580.03 for Jan., 1905.

Temiscouata Ry.—Traffic receipts for Feb., $12,078.32, against $9,461.90 for Feb., 1905.

STEAM SHOVELS



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TORONTO, CANADA, APRIL, 1906.

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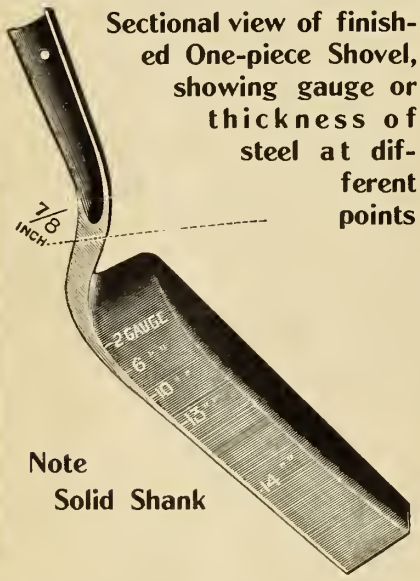

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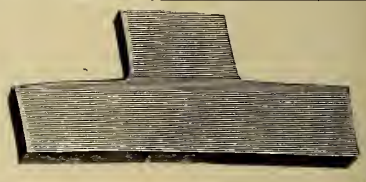

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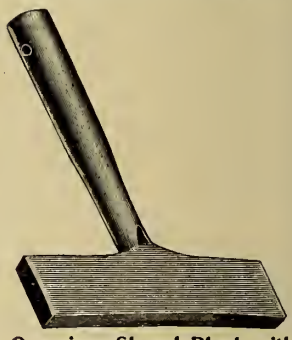

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Canadian Northern Railway Construction.

Additional land and buildings have been secured fronting Toronto and Court streets, Toronto, in the rear of the present office building at the corner of King and Toronto streets, for office purposes. The present office building is already overcrowded with the staffs of the C.N. Ry., and the other lines under construction for Mackenzie, Mann & Co.'s systems, and the offices of some of these will be transferred to the newly acquired property.

A large purchase of land has been made in the east end of Toronto, for railway terminals for the Mackenzie, Mann & Co.'s line, which will enter the city by the James Bay Ry., now under construction. The property acquired is in the area bounded by Front St., Eastern Ave., Cherry St. and Trinity St. Upon the site the company will erect a large freight shed with the necessary yards. Some other interests are reported to be associated with the purchase, and it is said that this company proposes to erect workmen's dwellings on its portion.

Canadian Freight Association.—At the last meeting of the Canadian Freight Association held in Montreal, Mar. 2, the rates by water and rail for the season of 1906 were discussed and practically agreed upon. There was a full attendance of members.

Canadian Car Service Bureau.—The representatives of the railways west of Port Arthur, Ont., held a meeting with representatives of the eastern railways and the Car Service Bureau, in Montreal, when it was decided to form a Car Service Bureau at Winnipeg, Man., having jurisdiction over all lines west of Port Arthur to a point west of Winnipeg, and another bureau to have jurisdiction on the Pacific Coast and in British Columbia. H. R. Patriarche was appointed to take charge of the Winnipeg Bureau, and C. K. Perry, heretofore Chief Inspector of the Montreal Bureau, of the B.C. one. The managers of the three bureaus will form a committee and will handle all matters in connection with car service business, the manager of the Montreal Bureau being Chairman. We were advised Mar. 21 that the proposed change at Winnipeg had not gone into effect, and that the arrangements heretofore existing will remain in force, with certain amendments to the constitution and by-laws. The appointment of C. K. Perry has not yet been confirmed. W. J. Collins has been appointed Inspector and located at Toronto; and D. H. Way has been appointed Inspector and located at Montreal.

H. Hall, Toronto, Parliamentary representative of the railway brotherhoods in Canada, is in communication with some of the U.S. railway companies in regard to reciprocity between trainmen in the service of Canadian and U.S. companies. If some agreement cannot be come to it is proposed to put the Alien Labor Law in force against the U.S. men coming into Canada.

The Canadian Commissioners, Capt. Gaudin, Capt. Newcombe, of the Dominion Government service, and Capt. Cox, Lloyds' agent, Vancouver, B.C., have presented an interim report respecting the loss of the U.S. str. Valencia, off Vancouver Island. They state that the available evidence is insufficient to justify a positive conclusion as to whether or not the calamity was chargeable to the inadequate lighting of Vancouver Island and coast. Basing their views upon expert testimony, the commissioners urge the immediate establishment of a number of important aids to navigation along the western and southern seaboard of Vancouver Island.

G.T.R. Betterments, Construction, Etc.

Office Building at Quebec.—The G.T.R. has recently purchased property in Quebec for the purpose of erecting a commodious building for office purposes. It is located on the corner of Ste. Anne and Du Fort streets, at the eastern end of Dufferin terrace and directly opposite the promenade. At present the G.T.R. ticket office and the I.C.R. ticket office are now occupying these premises on the ground floor, with residents living above the offices, but it is the intention of the G.T.R. to erect a six-story office building on the site. City ticket office, local freight office, and other offices of the company will be located in the new premises.

Montreal Offices.—We were officially informed Mar. 23 that the company is not in a position to give any definite information regarding the proposed new office building at Montreal. Press reports in Montreal state that a one-storey block will be erected opposite the present offices on McGill St., in the block between St. Paul St. and McGill Square, at a cost of $75,000 or $80,000. The building will be constructed so that additional storeys can be added as required by the officials of the G. T. Pacific Ry.

Falkenburg to Port Carling.—We have been officially advised that while consideration has been given to a project to construct an extension from the Northern Division of the G.T.R. near Falbenburg, to Port Carling, to open up to the rail a new section of the Muskoka country, nothing has been decided as to construction. (Mar., pg. 135).

Detroit-Durand Second Track.—We were advised Mar. 8, that at the present time it is not contemplated entering upon the construction of a second track between Detroit and Durand, Mich., for some years to come. (Mar., pg. 135).

A Watch Inspection System—The System of watch inspection for employes connected with the movement of trains on the Ottawa and New York Ry., has just been placed in operation by Webb C. Ball, Cleveland, Ohio, General Time Inspector, New York Central and Hudson River Rd., by which the O. and N.Y. Ry. is owned. The object of the inspection is to maintain a high degree of accuracy and efficiency in the time of the watches of the men, so that the train service can be operated promptly and safely. The instructions to local watch inspectors show the standard of excellence to be reached and maintained, and the standard for new watches. Standard "loaner" watches are provided to be given to the employes on leaving their own watches for cleaning, repairs or inspection, and cards are provided for recording the performance of watches from inspection to inspection. These cards in due course find their way to the General Time Inspector, who passes upon them.

The double daily transcontinental train service on the C.P.R. will be started early in May, which is about a month earlier than in 1905, when the service was started June 5. The exact date had not been definitely fixed when we received official notification of the company's plans.

The U.S. Senate has passed the shipping bill by a vote of 28 to 27. The bill, as passed, establishes 13 new contract mail lines, and increases the subvention to the Oceanic Steamship Co., for its services to Australia. The bill also grants a subvention at the rate of $5 per gross ton per year to cargo vessels engaged in the foreign trade of the United States, and $6.50 per ton to vessels engaged in the Philippine trade. A new naval force of 10,000 officers and men is also created who are to receive retainers after the British practice.

ELECTRIC RAILWAYS.

Niagara, St. Catharines and Toronto Ry.

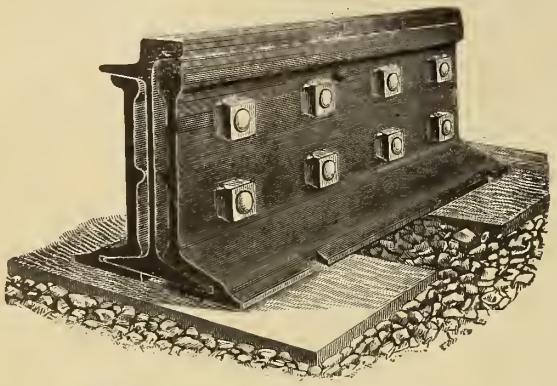
At the annual meeting in Toronto, Feb. 27, the following report for the year 1905 was presented by the President, Frederick Nicholls:

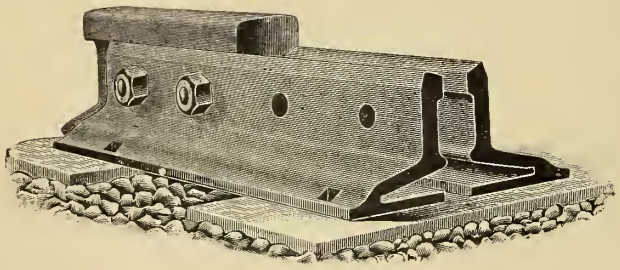
This company was incorporated by the Dominion Parliament in 1899. Some years previous a steam road was built between St. Catharines and Niagara Falls, Ont., known as the Niagara Central Ry. It, however, was not successful, and a syndicate of American and Canadian capitalists purchased it in 1899, and secured a charter from the Dominion Government under our present title, The Niagara, St. Catharines and Toronto Ry. Co., with the right to purchase the Niagara Central Ry. and all its assets and franchises. The road was reconstructed and electrified, and was ready for operation in Aug., 1900, and during the same year the line was extended from St. Catharines to Port Dalhousie, and this latter extension commenced operations in March, 1901. In 1899, a horse-car line running between Niagara Falls, Ont., to what was then Drummondville, and Niagara Falls South (all now the city of Niagara Falls), was purchased, rebuilt, and electrified, and electric cars commenced running in Aug., 1900. Another local line, operating between St. Catharines and Thorold, through Merritton, was purchased in May, 1901, and our property now consists of these various roads, which are amalgamated and operated under one management. In the winter of 1901, the Lakeside Navigation Co. was purchased, and our present Navigation Department is being operated under a separate charter, known as the Niagara, St. Catharines and Toronto Navigation Co., Ltd.

When we acquired the property we determined to adopt a vigorous policy and place the road in a thoroughly first-class condition, and a large amount of money has been spent during the present year for this purpose and charged to operating account. Amongst other improvements, we have completed an addition to our car barns in St. Catharines, which has been fitted as commodious quarters for operating offices, and as comfortable waiting-rooms for passengers. The amount we have previously paid out for office rental, if capitalized, would in five years pay for the total cost of this improvement, in addition to which we have now much better accommodation, including a large fire-proof vault. We have added to our equipment during the year, three modern, semi-convertible cars, and a freight locomotive, and our shops have also built a number of freight trucks for the navigation department. Our tracks have been overhauled throughout and maintained in a first-class condition, and 3,450 ft. of new track constructed to connect the Wesley Park Division with the Toronto and Hamilton Ry. right-of-way. A new station has been erected at Stamford, and all other stations, switches, semaphores, etc., have been repainted. In order that the road may be made first-class in every particular, the directors have authorized the necessary expenditures for filling all the trestles on the main line between St. Catharines and Niagara Falls, and for replacing all wooden bridges with steel and concrete structures. These improvements, which it is expected will be completed during the current year, will not only effect a large saving in the annual cost of maintenance, but will permit of trains being operated at a much higher rate of speed, thereby increasing the popularity of the route.

Application has been made to the Dominion Parliament for permission to extend our railway from Thorold to Welland and Port Colborne; from Port Colborne to Fort Erie, thence to the city of Niagara Falls; from Niagara Falls to Niagara-on-the-Lake; from Niagara Falls or Thorold or Welland to

Railroad Essentials.





The day has passed when men of finance are willing to place their money into bad material in railroad construction only to be compelled to replace it by renewals or reconstruction after very little use. Many of the best and most successful steam and electric railroads use the rail joints of the Continuous patent type for standard track work, insulated joints, step joints, and electric bonding joints for the reason that experience has proven it to be the best appliance of its kind ever put upon the market, as evidenced by the fact that it is used in all parts of the world on over 20,000 miles of track.

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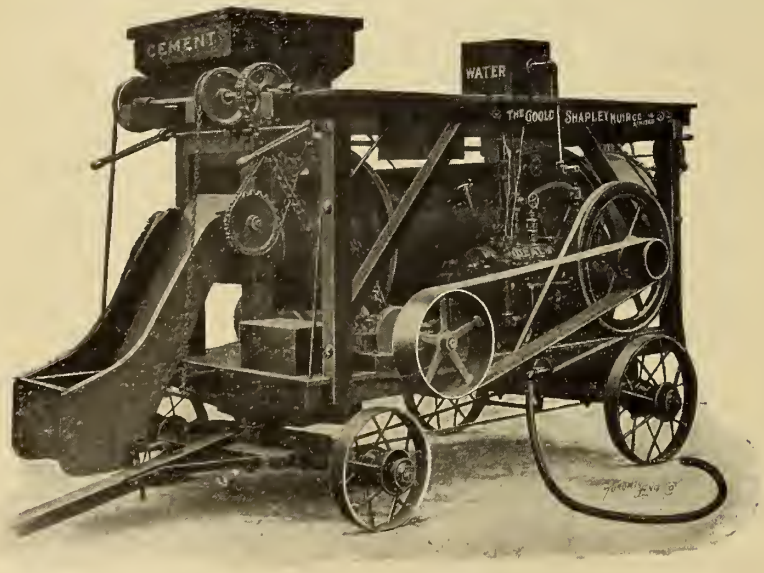

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Montreal to Avonmouth Docks, (Bristol and Antwerp.)

LEYLAND LINE.
Boston—Liverpool.
Sailing from Boston on Wednesdays.

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Lv.	Montreal	*9.00	a.m.,	*7.45	p.m.
Arr.	Lowell	*7.29	p.m.,	*6.37	a.m.
"	Worcester	†9.04	"	*9.19	"
"	Boston	*8.15	"	*7.30	"

VIA G.T.RY., AND WHITE RIVER JCT.

Lv.	Montreal	*9.01	a.m.,	*8.40	p.m.
Arr.	Lowell	*6.11	p.m.,	*7.17	a.m.
"	Worcester	†9.04	"	*9.19	"
"	Boston	*6.55	"	*8.05	"

VIA G.T.RY., WEST SHORE & ROTTERDAM

Lv.	Toronto			*4.10	p.m.
"	Niagara Falls			*6.30	"
"	Buffalo	*4.30	a.m.,	*7.20	"
Arr.	North Adams	*1.08	p.m.,	*5.11	a.m.
"	Worcester	*4.55	"	*9.59	"
"	Boston	*5.20	"	*9.50	"

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Brantford, and from St. Catharines to Niagara-on-the-Lake; also for power to amalgamate with any company having similar powers possessed by this company; to enter into arrangements with power companies for the transmission of electric power over the right-of-way of the company; to authorize the company to lease from or otherwise arrange with power companies for the use of the right-of-ways of power companies for the purposes of our railway; to extend the time for the commencement and completion of the company's lines of railways; to increase the capital stock of the company and for such other and further powers as may be deemed requisite and necessary for the purposes aforesaid. Sufficient bonds have been sold at a satisfactory price to enable the first extension from Thorold to Welland, and from thence to Port Colborne, to be proceeded with. Construction will be vigorously pushed during the summer, and when in operation it is anticipated that this additional mileage will add largely to receipts and furnish additional passenger and freight traffic for our navigation department.

The two vessels owned by the company and operated by our navigation department, have been well kept up. Two hundred new chairs and 495 new life preservers have been purchased for the Garden City, and the boilers of both the Garden City and the Lakeside were thoroughly overhauled. Encouraged by the opportunity to develop much larger excursion traffic, as well as through traffic from Toronto to St. Catharines, Niagara Falls, Buffalo, Welland and Port Colborne, the directors have decided to add to the fleet a large and fast twin-screw steamer, to be thoroughly well appointed and equipped with all modern improvements. Plans and specifications are being prepared and the steamer should be ready for service early in 1907.

It will be noticed that the proportion of operating expenses to earnings is 63%, but, inasmuch as during the year an exceptional amount has been charged to operating for a thorough overhauling of the system, it is anticipated that this percentage will be materially reduced during the present year.

ASSETS.

Investment account	$1,983,567.19
Accounts receivable	12,102.93
Stores	14,828.30
Cash	6,750.00
Suspense	2,922.07
Navigation stock in treasury	100,000.00
	$2,120,170.49

LIABILITIES.

Capital Stock—	
Railway	$ 925,000.00
Navigation	100,000.00
First Mortgage Bonds—	
*Port Dalhousie, St. Catharines and Thorold Ry. Co	60,000.00
Niagara, St. Catharines and Toronto Ry. Co	662,000.00
Niagara, St. Catharines and Toronto Nav. Co	200,000.00
Current Liabilities—	
Accounts payable	17,631.10
Bills payable	10,000.00
Interest accrued but not due	7,931.50
Permanent improvement account	6,853.27
Profit and loss	130,754.62
	$2,120,170.49

*$60,000.00 N., St. C. & T.Ry. Co. bonds are in the hands of the trustee, held for the purpose of redeeming the $60,000.00 Port Dalhousie, St. Catharines & Thorold Ry. Co. bonds when they mature in May next.

RECEIPTS.

Main Line—	1904.	1905.
Passenger earnings	$ 81,069.13	$ 87,727.50
Freight earnings	45,468.08	46,247.01
Express earnings	1,071.22	802.93
Sundry earnings	2,082.58	1,757.30
Wesley Park—		
Earnings	31,930.36	34,791.42
Local Line—		
Earnings	18,244.91	20,677.11
Navigation Co.—		
Passenger earnings	26,177.41	31,587.28
Freight earnings	16,429.07	21,946.29
Sundry earnings	1,451.97	774.57
	$223,924.73	$246,311.41

EXPENSES.

	1904.	1905.
Maintenance of bridges and buildings	$ 17,678.11	$ 18,077.24
Maintenance of locomotive and car dept	25,370.53	23,290 01
Maintenance of passenger department	21,641.22	25,613.61
Maintenance of freight department	12,197.75	12,731.06
Maintenance of boat department	26,879.08	33,805.05
Maintenance of power house	9,267.76	11,411.06
General expenses	28,462.55	30,747.59
Total operating	$141,497.00	$155,675.62
Net earnings from operations	$82,427.73	$90,635.79
Interest and discount	49,462.52	46,874.50
Surplus for year applicable for dividends	$32,965.21	$43,761.29

Operating expenses per cent. of earnings, 1901, 67%; 1902, 74%; 1903, 65%; 1904, 63%; 1905, 63%.

Passengers carried in 1905, Navigation Co., 93,268; Main Line, 849,024; Wesley Park, 768,195; Local Line, 404,846. Total, 2,115,333, against 2,014,789 in 1904; 1,885,714 in 1903; 1,368,252 in 1902, and 1,322,735 in 1901.

Following are the officers and directors for the current year: President, F. Nicholls; Vice-President, E. R. Wood; Secretary-Treasurer, Æ. Jarvis; Assistant Secretary-Treasurer, C. E. A. Goldman; other directors: D. D. Mann, Z. A. Lash, H. G. Nicholls; General Manager, E. F. Seixas; Accountant, D. J. McIntosh; General Freight and Passenger Agent J. Paul.

Canadian Electric Railways in 1904-05.

Statistics for the year ended June 30, 1905, shows that there were 793 miles completed, of which 768 miles were laid with steel rails, 186 miles being double-tracked. The paid-up capital amounted to $61,033,321, of which the municipal aid amounted to $173,000 (including $100,000 subscription to shares, and $40,000 loan.) The number of miles in operation was 793, the actual increase being 26 miles. The gross earnings aggregated $9,357,125, an increase of $903,516, and the working expenses $5,918,194, an increase of $591,677, leaving the net earnings $3,438,931, an increase of $311,839. The number of passengers carried was 203,467,317, an increase of 22,777,319, and the freight carried amounted to 510,350 tons, an increase of 110,189 tons. The car mileage was 45,959,101, an increase of 3,892,977 miles. The accident returns show a total of 56 persons killed during the year, 30 being passengers, 3 employes and 23 others. In addition, 1,269 persons were injured. Of these, 884 were passengers, 65 employes and 347 others; 1 passenger was killed, and 103 passengers, 4 employes and 1 other were injured in collisions and derailments; 2 passengers were killed, and 362 passengers, 2 employes and 5 others injured, through jumping on or off cars in motion; 1 passenger and 19 others were killed, and 2 passengers, 2 employes and 110 others injured through walking or being on the track; 22 passengers and 2 employes were killed, and 338 passengers, 15 employes, and 140 others injured through falling from cars; 4 passengers, 1 employe and 4 others were killed, and 37 passengers, 3 employes, and 78 others injured by being struck by cars at highway crossings; 3 employes were injured by coupling cars.

The Brantford Street Ry. has purchased three closed cars for its line, thereby adding 50% to the winter service.

The Hamilton Cataract Power, Light and Traction Co. is reported to have ordered two cars of 400 h.p., geared to run at 55 miles an hour, for use on the Hamilton Radial Ry.

Projects, Construction and Betterments.

Brantford Street Ry.—The shareholders at the recent annual meeeting approved of the plans for an extension of tracks in the city. The rails and ties are on the ground for an extension to the factory district in Eagle place, which involves the construction of about ¾ of a mile. The poles are already up, and construction will proceed immediately on the frost being out of the ground.

Canada Central Ry.—Senator Domville has returned from Great Britain where he has been for some time seeking to finance the construction of this projected electric railway from Montreal to Ottawa, thence to Georgian Bay, and on to St. Thomas, Ont. At St. John N.B., he stated in an interview that he had interested a syndicate in London in the proposal. Representatives of the men belonging to it are in Canada looking into the plans, and going over the projected route.

Grand Valley Ry.—The Dominion Parliament will be asked during the current session for an act extending the time for the completion of its authorized lines, and for power to construct a line from Brantford to Woodstock, Ont. It is proposed also to ask for power to lease the Brantford Street Ry. and the Woodstock, Thames Valley and Ingersoll Electric Ry., and to make agreements with companies for the transmission of electric power over its right-of-way.

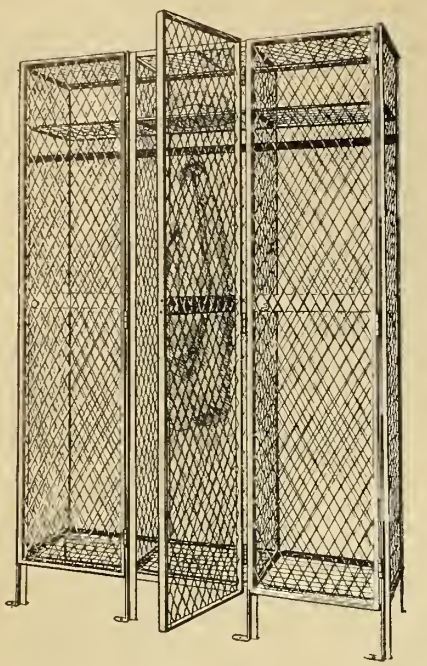
The company is considering several extensions, one from Blue Lake to St. George, a distance of about five miles. Part of this extension has already been graded and is ready for the ties and steel.

Levis County Ry.—At the recent session of the Quebec Legislature an act was passed incorporating J. Forman and his associates with this title to hold and operate the line, and conferring upon them the powers held by the former company. (Feb., pg. 89).

South Western Traction Co.—An extension of time for the construction of the projected lines and for the use of steam power during construction is being asked for at the current session of the Ontario Legislature. The confirmation of by-laws passed by the townships of Yarmouth and Westminster will also be asked for, as well as power to extend the line in the direction of Hamilton. The company has filed with the Ontario Government and with the public officials in London plans and details of the lands intended to be expropriated in London. Plans for the station and head office building on Horton St., London, have been completed, and a contract will be let for its construction at an early date. (Mar., pg. 135).

Sudbury, Copper Cliff and Creighton Electric Ry.—Application has been made to the Railway Committee of the Ontario Government for permission to run over the public highway and to expropriate some private property at Copper Cliff, Ont. The town of Sudbury and the municipality of McKim had granted franchises, but the municipality of Copper Cliff declined to grant a right to run over the highway. The Committee declined to grant the application, but suggested that the company might apply to the Legislature for special powers. The manager is Major J. R. Gordon, C.E., Sudbury, Ont.

Trans-Niagara Bridge Co.—Application has been made to the N.Y. Legislature, Albany, N.Y., for an act incorporating a company with this title to construct a bridge across the Niagara River at Niagara Falls, N.Y., and Ont., and to operate over it a double track electric railway. The names of the commissioners mentioned in the act are: G. B. Schley, New York; R. L. Fryer, H. L. Pierce, P. Norton, Buffalo, N.Y.; F. A. Dudley, Niagara Falls, N.Y.; F. Nicholls, E. R. Wood, D. E. Thomson, Toronto. A



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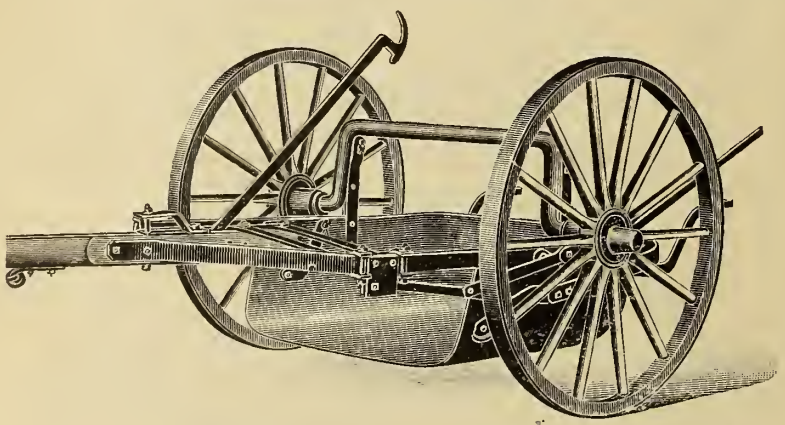

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number of the U.S. men named are connected with the International Ry., the President of which stated publicly in Toronto, Mar. 3, that the company was now nearly ready to construct a new electric railway over its own right-of-way from Niagara Falls to Buffalo, and that it was intended to run the trains between the two points in half an hour. The Toronto men mentioned are connected with the Toronto and Hamilton Ry., which is working out a project for a double track electric railway from Toronto to Niagara Falls; with the Niagara, St. Catharines and Toronto Ry., and other electric railways and power projects.

Western Central Ry.—The following appeared in the Interurban Railway Journal of Indianapolis, Ind, recently:

"Western Central (Canada).—This company will soon complete the construction of its line from Toronto, via Berlin to London, with a branch north from Berlin to Waterloo, Heidelburg, Mt. Clemens and Wellesley. Cars will be run from Toronto to London every hour and a half. It is proposed to supply a much better service than is now supplied by either the Canadian Pacific or Grand Trunk steam line."

The Western Central Ry. was incorporated by the Ontario Legislature in 1905; and was authorized to construct an electric railway from London to Guelph, via Embro, and New Dundee, with branches to Stratford and Woodstock. Up to the present date no construction has been done, and it is only quite recently that any definite work has been done in the way of applying for franchises from the different municipalities. So far as Toronto is concerned the Western Central Ry. Co. has no authority to construct a line any nearer to it than Guelph, but it purposes applying at the current session of the Ontario Legislature for an act giving it the necessary powers. (Feb., pg. 89).

We have been informed that grading and bridge work is in progress, W. Newman, C.E., being in charge. (Mar., pg. 153).

Windsor, Essex and Lake Shore Rapid Ry. Co.—The Dominion Parliament will be asked at its current session for an act authorizing it to construct a line of car ferries from Leamington or Kingsville, Ont., to some point on the south shore of Lake Erie, in the U.S., to enter into an agreement with the company constructing the tunnel between Detroit, Mich., and Windsor, Ont., for the use of the tunnel by the company's cars, and to declare the company's projected railway to be one for the general advantage of Canada. G. J. Leggatt, solicitor, Windsor, is acting for the company.

Electric Ry. Finance, Meetings, Etc.

British Columbia Electric Ry.—Gross earnings for Jan., $96,968, against $80,028 for Jan., 1905. Working expenses, $56,476; renewal funds, $8,500; approximate income from investments, $7,967; net income, $39,978, against $40,088 working expenses, $6,695 renewal funds, $2,750 income from investments; net income, $39,995 for Jan., 1905. Aggregate earnings for seven months ended Jan. 31, $694,541; net earnings, $318,067; against $543,949 gross and $224,917 net, for same period, 1904-05.

Cape Breton Electric Ry.—Gross earnings for year ended Dec. 31, 1905, $211,980.53; operating earnings, including taxes, $115,-262.24; interest charges, $44,295.45; net profit, $12,422.84. The figures include one-half of the earnings and expenses of the Sydney and Glace Bay Ry., a suburban electric railway which the C.B.E.Ry. owns jointly with the Dominion Coal Co.

Grand Valley Ry.—The line and franchises of the Woodstock, Thames Valley and Ingersoll Electric Ry. have been acquired by the G.V. Ry. Co., and the new owners took possession Mar. 1. The officers and directors of the G.V. Ry. for the current year are: President, A. J. Pattison; Vice-President, W. S. Dinnick; other directors, Rev. E. T. Fox, J. S. King, W. R. Turnbull, A. J. Pattison, Jr. See also Brantford Street Ry.

Montreal Street Ry.—Passenger earnings for Feb., $211,827.83; gross earnings, $213,-416.28, against $184,131.97 passenger, and $185,864.43 gross, for Feb. 1905. Net earnings, $57,376.65; fixed charges, $36,-124.16; surplus, $21,552.69. Net earnings for five months ended Feb. 28, $1,171,015.77; surplus, $259,880.61, against $1,027,214.61 net earnings; and $229,530.28 surplus for same period, 1904-05. Interest on Montreal Park and Island Ry. Co.'s bonds owned by the company not included.

Niagara, St. Catharines and Toronto Ry.—Power is being asked at the current session of the Dominion Parliament to increase the bonding powers of the company to $30,000 a mile of its railway.

St. John Ry.—The auditors, A. Seeley and I. O. Thomas, report that the gross earnings for the year ended Dec., 1905, were $116-, 110.10, as against $116,801.54 for 1904. The cash actually paid out for operating the system in 1905 was $96,231.53, which can be summarized as follows:

Operating expenses	$61,661 71
Maintenance	19,587 41
General expenses	14,982 41
Total	$96,231 53

The expense of operating and maintenance was largely in excess of last year. The principal item of expenditure causing this increase was due to the increased car service given by the company last year.

Toronto Ry.—Car earnings for Feb., $210,531.55 against $185,377.08 for Feb., 1905.

Electric Railway Notes.

E. Whittaker is reported to have been appointed Superintendent London Street Ry., succeeding J. Break, resigned after 12 years' service.

A building under course of erection in Dominion Park, Longue Pointe, Que., in which the Montreal Street Ry. is interested, collapsed during a wind storm, Mar. 3, two men being seriously injured.

The Montreal Street Ry. has ordered 100 new cars of the semi-convertible "pay-as-you-enter" type, to be 7 ft. longer in the body, and two ft. longer on the back platform, or 9 ft. in all longer than the longest car at present being operated on the company's lines. The cars will be fitted with rubber tiled flooring, side and centre lights, and electric push buttons.

The British Columbia Legislature has given consideration during the current session to an act for securing the safety of passengers travelling on, and for preventing accidents and injuries to employes on tramways and street railways. It provides for the mode of equipment of open cars; prohibits outside passageways, and provides a penalty of $100 for every offence.

The Nova Scotia Legislature at its current session passed an act amending the revised statutes so that Sections 206 to 214 of the Railway Act be made applicable to tramways. The sections authorize the making of by-laws for a number of purposes connected with the management of the companies' affairs, regulating the speed of cars, for the carrying on of freight and passenger business, for the control of officers and servants of the companies, and for the prevention of smoking in the cars.

THE GIANT BRAKE

Is constructed on sound and well-established mechanical principles as related to braking. It is not freaky nor sensational. Its balance between power and quickness is the happy medium, the result of many years' experience on thousands of cars.

If in the market for brakes, try it. Price $18.00 a pair.

STERLING-MEAKER CO., OWNER NEWARK, N.J.

THE N. L. PIPER RAILWAY SUPPLY CO.

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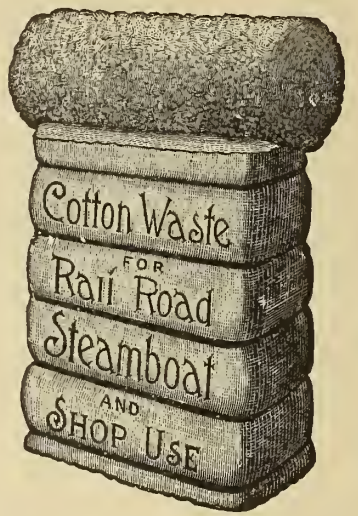

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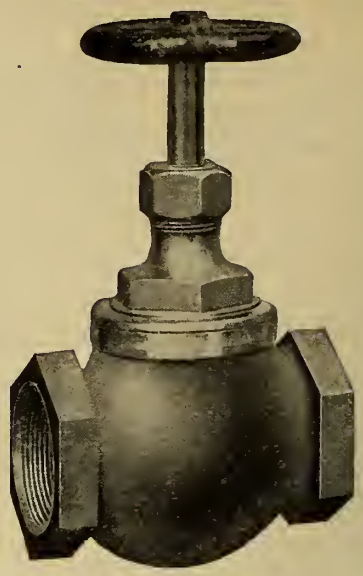

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are superior to any other disc valves on the market for high steam . . . . . .

This is a very superior valve, at a moderate price . . .

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TORONTO BOLT AND FORGING CO.

LIMITED

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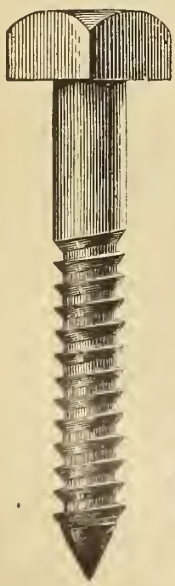
BOLTS AND NUTS

OF ALL KINDS, INCLUDING



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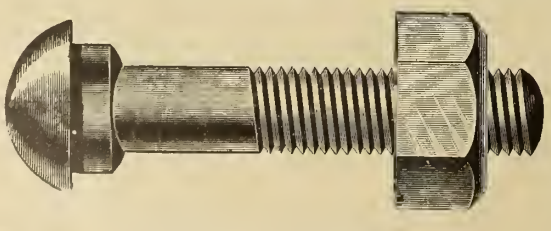

TORONTO — CANADA

NEW YORK CENTRAL LINES

FROM	LEAVE
TORONTO	9.45 a.m., 5.20 p.m.
AND	
HAMILTON	10.45 a.m., 6.20 p.m.
TO	ARRIVE
NEW YORK	10.00 p.m., 7.50 a.m.

The only lines with a station in the City of New York.

GRAND CENTRAL STATION

centre of the

HOTEL, RESIDENCE, CLUB, THEATRE DISTRICT

L. DRAGO

Canadian Passenger Agent, 69½ Yonge St.

TORONTO, ONTARIO

Winnipeg Electric Railway Co.

The report of the Directors for the year ended Dec. 31, 1905, showed net earnings of $396,701.19, as compared with $268,266.51 in 1904. After providing for the percentage on earnings accrued to the city and interest on bonds, four quarterly dividends amounting to $200,000.00 were paid, leaving a surplus of $194,451.19, which has been transferred to the credit of Profit and Loss Account, making a total credit to this account Dec. 31, 1905, of $546,052.98. The percentage of earnings shows an increase of 34.63% compared with last year, while the operating expense shows an increase of 34.60% as compared with the same period. The net earnings show an increase of 34.67% over those of last year. The roadbed, rolling stock, buildings and other properties of the company, have been efficiently maintained. During the past year the following improvements and additions were made, viz.:—Seventeen double truck closed motor cars; 3,500 h.p. each, water-tube boilers; one cross compound 1,200 h.p. engine, direct connection to one 800 k.w. alternating generator; one air and circulating pump and condenser, with necessary piping; new coal gas plant, complete, and put in operation in July; 51,792 ft. of new gas mains put down; 639 new gas services put in; 1,532 new poles put up; 166,651 lbs. wire put up; 8,270 ft. new track in asphalt pavement; 7,920 ft. new track in Kildonan; 17,880 ft. new track in St. Charles; one new storage car barn, capacity 50 cars.

Statistics: Operating expenses per cent of earnings, 51.42, against 51.47 for 1904; passengers carried, 13,081,249, against 9,504,051 in 1904; transfers, 1,682,685, against 2,497,952 in 1904.

ASSETS

Cost of property.—Street railway, buildings, plant and equipment; electric lighting plant and equipment; electric power plant and equipment; gas buildings, plant and equipment; water power plant and equipment		$9,125,836.26
Stores		84,220.13
Accounts receivable		149,462.26
Cash on hand in office		6,944.20
		$9,366,462.85

LIABILITIES

Capital stock		$4,000,000.00
Bonds, 5% payable Jan. 1, 1927	$1,000,000	
Bonds, 5% payable Jan. 2, 1935	2,500,000	
		3,500,000.00
Accounts payable	107,173.26	
Wages for December	31,744.17	
Interest on bonds paid Jan. 2, 1906	87,554.70	
		226,472.13
Car license due Feb. 1, 1906	1,600.00	
City percentage due Feb. 1, 1906	27,582.53	
		29,182.53
Unredeemed tickets		4,968.79
Bank of Montreal		918,904.48
Suspense		140,881.94
		$8,820,409.87
Surplus as per profit and loss account		546,052.98
		$9,366,462.85

Hamilton Cataract Power, Light & Traction Co.

Following are extracts from the report for the year 1905:—The development at Power Glen of the generating plant is practically finished. Some additional but minor work remains to be done upon two generating units of 7,500 h.p. each, and the company now has a reserve of power that will take care of its normal growth for some time to come. The radial extension to Oakville is also nearly finished, and will be put into service on or before May 1. This extension is a notably good piece of electric railway construction. The directors have had under consideration the establishment of a new terminal station for all radial or suburban electric railways running into Hamilton, combining therewith the head offices and business premises of the company. This will probably be carried out through the instrumentality of a subsidiary company, established for the purpose and controlled by this company. The company purchased, April 1, 1905, the entire capital stock of the Lincolu Electric Light and Power Co. The year's operations have been featureless, aside from a regular and steady growth. Physical condition has been very much improved, particularly in the generating and sub-stations.

RECEIPTS AND EXPENDITURE

Gross earnings, power and light department		$ 504,449.06
Gross earnings, traction department		366,584.30
Gross earnings, other sources		7,130.58
Operating expenses	$ 297,657.14	
Maintenance	90,365.51	
General expense	86,243.64	
Bond interest	139,636.97	
Mileage and percentage	27,538.37	
Rent	415.56	
Surplus to profit and loss	236,306.75	
	$ 878,163.94	$878,163.94

PROFIT AND LOSS ACCOUNT

Balance from 1904		$ 208,952.23
Surplus Receipts and Expenditure, 1905		236,306.75
Adjustment Account	$ 12,949.51	
Preference Divid. No. 12.	72,241.12	
Preference Divid. No. 13.	74,637.53	
Common Divid'd No. 1	25,500.00	
Common Divid'd No. 2	25,500.00	
Balance, Sinking Fund, Hamilton and Dundas Ry. Bonds, $1,336.18; Surplus Earnings, $233,094.64	234,430.82	
	$ 445,258.98	$ 445,258.98

ASSETS

Investment account	$8,238,094.68
Supplies on hand	74,236.91
Insurance, unexpired	4,285.75
Accounts receivable	65,971.49
Customers' acts. due, but not collected	97,563.64
Bills receivable	700.00
Cash on deposit	25,581.01
Cash on hand	12,454.64
Trustees of bonds	4,845.70
Suspense accounts	5,295.74
Cataract syndicate securities	51,009.68
	$8,580,039.24

LIABILITIES

Capital stock, preferred		$2,895,700.00
Capital stock, common		1,700,000.00
Bonded debt		3,378,600.00
H.E.L. & C.P.Co. bonds, originally $1,100,000	$1,090,000.00	
H.C.P., L. & T. Co., Ltd.	1,604,000.00	
Hamilton Street Ry.	500,000.00	
Hamilton&DundasSt.Ry.	100,000.00	
Lincoln Electric Light & Power Co., originally $75,000	71,000.00	
Mortgages	13,600.00	
Bills payable		101,368.75
Accounts payable		105,560.69
Accrued bond interest		43,339.80
Accrued track rental		19,596.29
Dividends unpaid		100,156.78
Profit and loss, Sinking Fund Hamilton and Dundas Ry. bonds	$ 2,622.29	
Surplus earnings	233,094.64	235,716.93
		$8,580,039.24

At the annual meeting, Feb. 12, the report and statement of accounts were adopted, and the directors were re-elected. Following are the officers and directors for the current year:—President, Col. J. M. Gibson; Vice-President, J. Dixon; Treasurer, J. R. Moodie; Secretary and General Manager, W. C. Hawkins; other directors, J. Dickenson, J. W. Sutherland, J. A. Kamerer.

The Intercolonial Ry. received the following additional rolling stock between Feb. 16 and Mar. 22: 53 box cars, 60,000 lbs. capacity, from the Crossen Car Manufacturing Co., Cobourg, Ont.; one first-class car and 21 box cars, 80,000 lbs. capacity, from Rhodes, Curry & Co., Amherst, N.S.; two flanger cars and 13 box cars, 60,000 lbs. capacity, also from Canadian builders.

Grain Elevator Notes.

The flour mill and elevator owned by Gibson & Co., Morrisburg, Ont., were destroyed by fire, Mar. 20.

The Manor Farmers' Elevator has been incorporated at Regina, Sask., under the Ordinances of the North-West Territories.

The Wabash Rd., it is reported, has selected a site at Fort Erie, Ont., upon which to erect a grain elevator of large capacity.

J. Linehan, Calgary, Alta., has been inspecting sites at Vancouver, B.C., recently, with the object of erecting a 100,000 bush. elevator there.

T. Long & Bro., Collingwood, Ont., have purchased a site on the harbor front there upon which it is intended to erect an elevator, general warehouse and cold storage plant.

The new elevator at Tiffin, near Midland, Ont., is now practically completed, and it is expected will be given a trial run April 15. The elevator has a capacity of 1,000,000 bush.

It is reported that the elevator at Coteau, heretofore used in the transfer of grain from the Canada Atlantic Ry. trains to barges, will not be operated this season, as the grain trains will be run through to Montreal by the G.T.R.

The John Campbell Milling Co., St. Thomas, Ont., propose erecting a grain elevator at Port Stanley, Ont., in connection with their business. It is the firm's intention to bring the wheat for the mill by water instead of by rail as formerly.

In the new Province of Alberta there are elevators at 28 points, having a total capacity of 2,052,000 bush. In the northern portions of the province there are elevators at nine different points with a capacity of 955,000 bush., and in the southern sections there are elevators at 19 points with a capacity of 1,097,000 bush.

A project is under consideration at Winnipeg, Man., for the formation of a syndicate for the insurance of grain elevators and their contents. A circular issued by the grain dealers states that in the past four years the insurance premiums paid by grain elevators has amounted to $446,000, and the losses by fire on this class of risks has been about $40,000.

In connection with the construction of the new elevator at Goderich, Ont., it may be mentioned that the marine leg will be built in a steel structure outside the elevator, the face of which will be nearly flush with the dock, thus making the machinery easy to handle, and giving the leg a far greater reach, so as to be able to unload the big steamers now building.

The Montreal Grain Elevating Co. has a claim against the Montreal Harbor Commissioners for $25,000 for damages to its floating elevator St. Lawrence, which struck an unfinished wharf and sank. The company attributes the accident to the fault and negligence of the commissioners in allowing the wharf to remain in a dangerous condition, and in not providing for the safety of the vessels navigating the harbor.

C.P.R. Lands.—We are officially advised that the company has practically sold 500,000 acres of land in the Edmonton, Alta., district to an English syndicate. These lands have been withdrawn from sale. There has been no general withdrawal of the company's lands from sale, as press reports state, but in certain sections tributary to the C.P.R. and other projected lines, the lands are held at a maximum price, which may in some cases be higher than the present value, until such time as they can be carefully examined with a view of placing them at a proper valuation.

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OTTAWA, CANADA

CABLE ADDRESS—
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POLSON IRON WORKS, LIMITED

TORONTO, CANADA

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MORISON Suspension Furnaces

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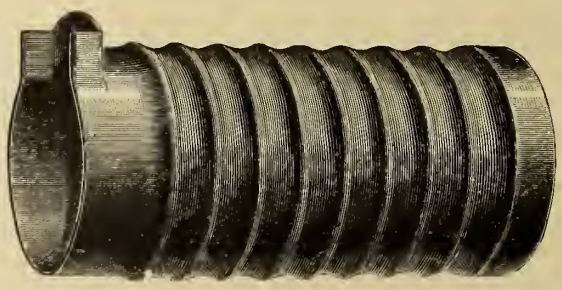
With Plain Ends or Flanged to any required shape.



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Sole Canadian Agent—MR. GEORGE HOLLAND, M.C. Soc. C.E., P.O. Box 529, MONTREAL

MARINE DEPARTMENT

LIST OF STEAM VESSELS REGISTERED IN CANADA FROM FEB. 15 TO MAR. 15.

Name.	No.	When and Where Built.	Engines, etc.	Length	B'dth.	Depth.	Gross tons.	Reg. tons.	Home Ports.	Owners.
				ft.	ft.	ft.				
Afton	117,154	New Westminster,B.C.,1906	Screw 1 N.H.P.	28.0	5.8	3.0	3	2	NewWestminster,B.C	T H. Goldie, New Westminster, B.C.
Amenda	121,844	Ahmic Harbor, Ont,, 1906.	" ½ "	36.0	7.5	3.2	6	4	Toronto, Ont.	W. Stewart, Muskoka, Ont.
Amy	121,723	Vancouver, B.C., 1906	" 4 "	40.5	10.4	5.0	25[illegible]	17	Vancouver, B.C.	H. McCartney, Vancouver, B.C.
Arabia	121,784	Buffalo, N.Y., 1873	" 124½ "	233.0	34.5	14.2	1515	864	Ottawa, Ont.	J. H. Hall, Ottawa; C. A. Jaques, Mont'l.
Boss	121,724	Nanaimo, B.C., 1896	" 1 "	38.5	11.0	5.0	25	17	Vancouver, B.C.	A. E. Brown, Vancouver, B.C.
DavidMarwick	116,368	Tobermory, Ont., 1905	" 13½ "	60.0	13.8	6.2	30	20	Goderich, Ont.	W. Leslie, Tobermory, Ont.
Ila	121,722	Vancouver, B.C., 1905	" 1 "	32.0	10.2	5.1	15	10	Vancouver, B.C.	E. W. Marshall, Vancouver, B.C.
Ludivica	121,871	Tusket Wedge, N.S., 1906	" 6 "	45.0	11.2	5.4	17	11	Yarmouth, N.S.	H. T. LeBlanc, Tusket Wedge, N.S.
Maple Leaf	116,938	Galiano Island, B.C., 1905.	" 1½ "	32.0	8.0	3.4	9	5	Victoria, B.C.	J. Wintermute, Ladysmith, B.C.
Minnie	121,725	Sunbury, B.C., 1906	" 2 "	32.0	10.8	4.6	13	9	Vancouver, B.C.	K. Helenius, Sunbury, B.C.

LIST OF SAILING VESSELS AND BARGES REGISTERED IN CANADA FROM FEB. 15 TO MAR. 15

Name.	No.	Where and When Built.	Rig.	Length	B'dth.	Depth.	Gross tons.	Reg. tons.	Home Port.	Owners.
Emily E.Maxwell	112,362	Manitowoc, Wis., 1881	Bark	148.5	30.3	10.6	362	327	Port Hope, Ont	J. H. Peacock, Port Hope, Ont.
Stella	116,860	Shelburne, N.S., 1906	Schr.	76.0	21.5	10.0	77	77	Shelburne, N.S.	C. Locke, Lockport, N.S.

The St. Lawrence River Pilots.

The reorganization of the pilotage system on the St. Lawrence River is being carried out under the direction of Capt. Spain of the Department of Marine. In 1905 the Department took over the duty of supervising the pilots between Montreal and Quebec, and this year has taken over the control of the pilots operating between Quebec and the Gulf of St. Lawrence. The work at present in hand is the reorganization of the pilotage system between Quebec and the Gulf, and in this connection several conferences have taken place between the Minister of Marine, the Shipping Federation of Canada and representatives of the pilots. As a result, it is understood that the age limit of the pilots is to be 65, and those above that age are to be retired on a retiring allowance, unless they can pass a medical examination showing they are physically fit, and be granted a license from year to year by the Minister as long as they are fit. The examination to include an eyesight and hearing test twice a year, once before the opening of navigation and again in Sept. The rules of examination to be amended so that all pilots are to be submitted to an eyesight, hearing, color and vision test on the same lines as are now inaugurated by the British Board of Trade and required of masters and mates; an examination in the use of the compass and charts in the same way as sea-going masters. Every apprentice pilot before he gets his branch is to hold a sea-going certificate of competency. There are 116 pilots below Quebec, 28 of whom have masters' certificates, and it is suggested that everyone should hold a certificate before they get their branches. Those who at present hold certificates to be examined in regard to the compass, charts and bearings. The number of pilots below Quebec, viz., 116, are too many, and it is proposed that they should be reduced to 75. The question of introducing a bill to abolish the powers of the Corporation of Pilots will be taken up later, should the changes suggested not have the desired effect of giving the Minister absolute control. It is also suggested that a Board of Management with powers from the Minister may be appointed later to discipline the pilots. The board will probably consist of three, one each representing the Department, the Shipping Federation, and the pilots.

Lake Freight Situation.

Our Winnipeg correspondent writes: In view of the exceptionally mild ice conditions that have prevailed on the Great Lakes, the present winter, it is expected that navigation will be in full swing on April 1, on which date the hull and cargo insurance attaches. There is still a good deal of uncertainty as to what action the mates on the U.S. side of the line will take in view of the resolution of the Lake Carriers' Association not to employ mates who are in any way connected with any labor organization, and this uncertainty is having its effect on grain chartering as shippers do not care to sell wheat which they may be unable to move, but amongst the owners the feeling is that there will be no trouble with the mates, more especially in view of the probability of trouble in the coal districts, as trouble with the miners will naturally affect the lake carrying trade to a very large degree. These conditions do not apply so strongly to the Canadian vessels, but the coal strike will more or less affect them, while a mates' strike will be of decided advantage to Canadian vessels on account of making a shortage in lake tonnage on the market.

Considerable chartering has been done for the opening from Fort William, at rate of 2¼c. per bush. to Georgian Bay and Lake Huron ports, and the same rate has been made to Buffalo by U.S. boats, although Canadian vessels are asking 2½c. for that port. Montreal rates have been held at 7c. without insurance, and ¼c. over, including insurance, but owing to the action of the lake underwriters in putting insurance rates very much higher than last season, it is not expected that the vessels will care to continue insuring cargos as in the past, but will in future allow shippers to make their own cargo insurance arrangements. In view of the possible coal strike, coal chartering has been very active all winter and quite a number of boats were loaded with coal early in Feb. at eastern ports, rates to be agreed on at the opening of navigation and therefore no rates have as yet been definitely announced so far as American tonnage is concerned, although some of the Canadian vessels have contracted for the season at 35c. per ton on soft coal, Lake Erie ports to Fort William. Some chartering has also been done for steel rails at 90c. per ton from Sault Ste. Marie, Ont., to Upper Lake ports.

Dominion Marine Association.

The annual meeting was held at Ottawa, Mar. 22, when there was a large representation of the various companies comprising the membership. The secretary, F. King, read the report of the Executive Committee, which dealt at length with the various questions considered during the year, showing the results achieved and the present position of unsettled matters. A committee on Aids to Navigation was appointed upon the recommendation of the Executive Committee. The financial report showed a balance in hand of $1,307.31. Several questions were discussed, including the bills now before Parliament affecting the marine interests, and deputations to the Ministers having charge of the same were arranged for. Following were elected members of the Executive Committee for the current year: J. A. Cuttle, A. A. Wright, A. B. MacKay, T. Donnelly, C. J. Smith, S. Crangle, H. H, Gildersleeve, J. H. Hall, D. Murphy, F. Plummer, G. T. Marks, J. P. Kavanagh. Subsequently the Executive Committee met and elected J. A. Cuttle as President; C. J. Smith as First Vice-President, and G. T. Marks as Second Vice-President.

Later in the day, deputations waited on the Minister of Marine respecting aids to navigation, the hospital tax on sick mariners, and other matters; and the Minister of Railways and Canals with respect to the advertised closing of the Cornwall canal during April; the electric traction system at the Cornwall canal; the protection of bridge piers, etc., in the Lachine canal; the opening of the Farrans' Point lock on Sundays, and also, if possible, the guard lock on the Cornwall canal. The deputation learned that instructions had been given to

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Heads, full and true.

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PRESSED and SHIPS' SPIKES

WHARF and DRIFT SPIKES

BRIDGE BOLTS, WASHERS, RIVETS, Etc.

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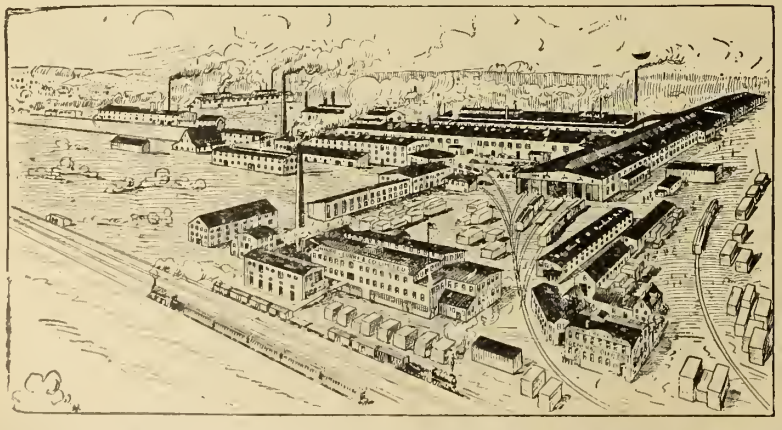
RAILWAY and STREET CARS

Special Cars for All Purposes.



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CAPACITY PER MONTH

300 Freight Cars 4 Passenger Cars 4 Snow Plows 3,000 Car Wheels
2,500 Car Axles 500 tons Castings 1,000 tons Forgings

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Is the Great Trunk Line between the east and the west, the short and true route from Canada to Hot Springs, Ark., the greatest health resort in America, Old Mexico the most interesting country on the face of the globe, Texas and California the lands of sunshine and flowers. The through trains on the Wabash are acknowledged by travelers to be the finest in America. For time-tables and other printed matter, address any Wabash Agent, or

J. A. RICHARDSON
District Passenger Agent,
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TORONTO; and ST. THOMAS, ONTARIO

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Where **ILLINOIS CENTRAL RAILROAD COMPANY** has through car service, both Coach and Sleeper and Free Chair Cars,

Chicago to Hot Springs, Ark., St. Louis, Omaha, St. Paul and Minneapolis, Memphis, Tenn., New Orleans, San Antonio, Texas, and all California

in Special Excursion Pullman Cars. Round Trip Tickets to all South and South-west points daily, same to California. Rate same via New Orleans as other direct routes. First and third Tuesdays each month.

Special First-class Round Trip Tickets at one fare plus $2.00 from Chicago to Home-seekers in South and South-west.

Look The Illinois Central map over and consult

G. B. WYLLIE,
Canadian Passenger Agent,
210 ELLICOTT SQUARE, BUFFALO, N.Y.

The Air Brake Association of America has decided to hold its annual convention in Montreal, June 5, 6 and 7. W. I. Hatch, General Air Brake Inspector, C.P.R., and W. C. Hunter, Manager New Brunswick Coal and Ry. Co., are members of the executive committee.

A directory of officials of all steam, electric and other railways in operation in the United States, Canada and Mexico, has just been issued by Poor's Railroad Manual, 68 William St., New York. The lists are corrected to Feb. 1, and occupy 152 closely printed pages; steam railways taking up 83 pages, electric railways 53 pages, and the remaining pages special lists. There are also given statistics relating to steam railways and street railways, and a general index.

hasten the work on the canals and let in water again at the earliest possible date so that the opening of navigation would not be delayed. The other matters presented were noted and promised consideration.

A full report of the proceedings will appear in our May issue.

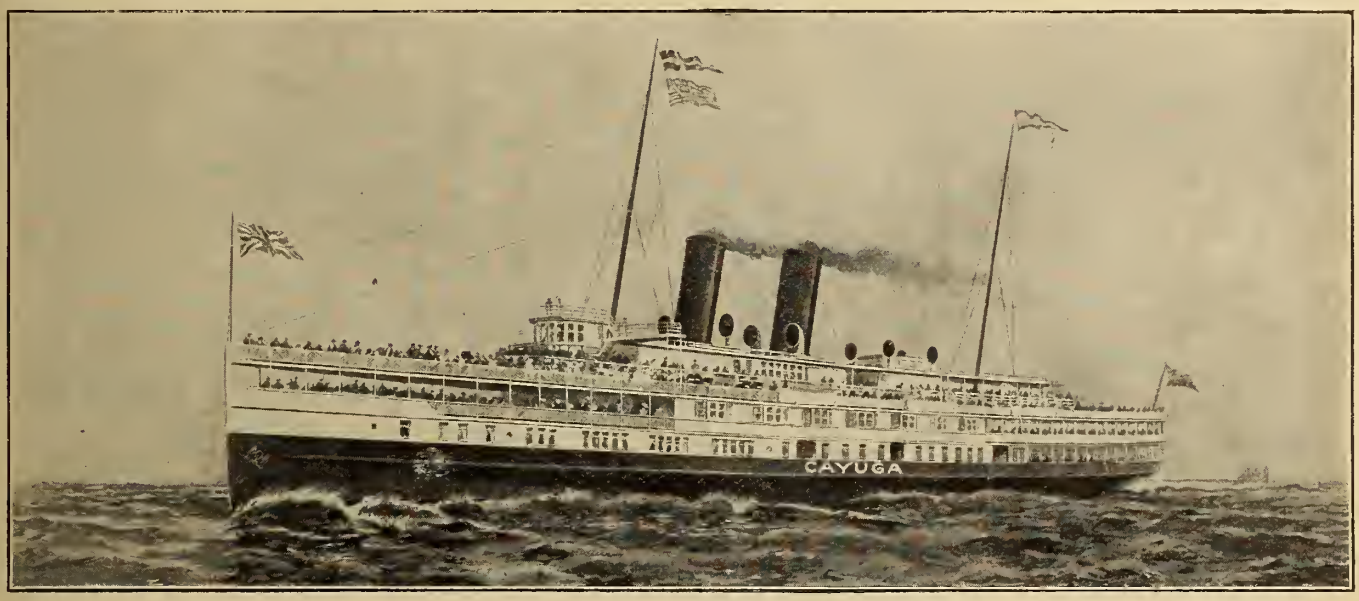
Niagara Navigation Co.'s New Steamer.

The launch of the new steamer for the Niagara Navigation Co. took place from the builder's yard in Toronto, Mar. 3. Notwithstanding the heavy rain and the strong south-east wind that was blowing during the morning, and which was particularly heavy at the time of the launch, there was a very large number of persons present. The christening ceremony was performed by Miss Mary Osler, daughter of E. B. Osler, M.P., President of the company, and the name Cayuga was given to the new steamer as she left the ways.

The vessel is planned on the lines of the day service observation type of steamers, having four principal decks, namely, main deck, promenade deck, upper promenade deck, and lower or orlop deck below the main deck. The hull is of steel, with bilge keels, to reduce rolling to a minimum, and has the following general dimensions:—length, 317 ft. 6 in. over all; beam of hull, 36 ft. 6 in.; over guards, 51 ft. 8 in.; depth, 15 ft. moulded; draught, 10 ft. Internally the hull is divided into eight watertight compartments by seven bulkheads, thus rendering her practically unsinkable. She will be driven by twin screws, power being supplied by two sets of vertical inverted, direct acting quadruple expansion engines, balanced on the most modern principle; cylinders, 17½ in., 25 in., 36 in., and 52 in. diameter by 30 in. stroke. Steam will be supplied at 210 lbs. pressure, by seven Scotch marine boilers, 11 ft. by 12 ft., fitted with two corrugated furnaces, and a system of heated draught. Two smoke stacks will be provided similar to the other steamers of the line. The steamer is to have a guaranteed speed of 22½ miles an hour. The engines are designed to develop 4,300 h.p., which is about 30% greater than that developed by the Montreal, at present the most powerful Canadian steamer, and is only exceeded by a very few passenger steamers on the U.S. side of the Great Lakes.

The interior arrangements of the steamer are primarily arranged to provide the greatest conveniences for the passengers. There will be three gangways on each side, the forward ones for passengers and express, the middle ones for passengers' baggage and the aft one for passengers only. This latter will lead directly into the entrance hall on the main deck, at the forward end of which will be found the purser's office, a parcel checking room and other offices with which passengers have to come in contact. At the aft end will be the ladies' retiring room, which will be specially fitted for the comfort and convenience of ladies, and will include a number of new features. At the forward end a staircase 7 ft. wide will connect the entrance hall with the promenade deck above. The dining-room will be forward on the main deck, and will be fitted with large observation windows on each side, so that an uninterrupted view may be had. It will have a seating capacity for 150. The main deck will be of steel covered with wood, and interlocked rubber tiling will be used as a flooring in several parts of the vessel devoted to passenger accommodation. On the promenade deck the principal feature will be the general saloon, which will extend the full width of the steamer. It will be a particularly handsome apartment, and the sides, instead of being straight, will consist of a series of bow windows, so that views may be had ahead and astern as well as straight out. At each bay seats will be provided so that small parties may keep together. Two of the bays will be finished as private parlors, which will be available for letting to parties who desire to be alone. The upper promenade deck, which will be reached by a stairway from the general saloon, as well as by stairways from outside on the promenade deck, will extend over the whole vessel, instead of ending just forward of the wheelhouse as in most vessels of this type. The rail will be inside the lifeboats, and the entire width of the deck will be available for passengers. The captain's quarters, the wheel house, and the pilot's room will be on this deck. A light shade deck amidships will give shelter over this deck. The space over the engine room, instead of being closed in with steel plates, will be surrounded with a framework in which plate glass sides will be fixed so as to enable passengers to have a view of the machinery. On the lower or orlop deck will be found quarters for the crew, kitchens, smoking room, engines and boilers, etc. The decorations will be particularly striking. The entrance hall will have a heavy beam ceiling; the main stairway will be in cathedral oak; the dining-room in mahogany, and other portions of the passenger accommodation in weathered and quartered oak. The designs show some very fine effects, and will present a rich and artistic appearance. The furnishings of the various rooms will be in harmony with the general decorative design and color scheme.

Following the launch the Canadian Shipbuilding Co. entertained a large party, including representatives of the municipal and financial interests of the city, and of the transportation interests in Canada and the United States associated with the Niagara Navigation Co., at lunch at the King Edward Hotel. The toast list was a short one, F. Nicholls, President of the Shipbuilding Company, opening the proceedings; the Mayor of Toronto proposing prosperity to the Niagara Navigation Co., and E. B. Osler replying; D. R. Wilkie proposing the shipbuilding company, A. Augstrom, its General Manager replying; the sponsor of the steamer proposed by F. W. Cumberland, Vice-President of the Niagara Navigation Co.; our Canadian allies, proposed by H. J. Pearce, President of the International Traction Co., Buffalo; and Manager of the N.N. Co., which was acknowledged by B. W. Folger.



NIAGARA NAVIGATION CO.'S NEW STEAMER CAYUGA.

The Cayuga will be completed for the current season's traffic, it being expected that she will be ready to take up the run on June 15, when in conjunction with the Chippewa and the Corona, the full service of six trips a day will be given. The Chicora will be held as a spare steamer ready for any emergencies.

Notices to Mariners.

The Dominion Department of Marine has issued the following notices to mariners:—

No. 10. Feb. 13.—Nova Scotia—27. Annapolis River, Troop point, lighthouse established. 28. South coast, Madame Island, West Arichat, change in color of back range light.

No. 11. Feb. 16.—New Brunswick—30. South coast, Bay of Fundy, Tiner point fog alarm, change in length of interval between blasts. 31. South coast, Bay of Fundy, St. John Harbor, Partridge Island, change in fog alarm.

CANADIAN NORTHERN RAILWAY

The New Canadian Highway from Port Arthur, the Head of Lake Superior, to:

Fort Frances	Emerson	Kamsack	Battleford
Winnipeg	Carman	Neepawa	Lloydminster
Portage la Prairie	Gladstone	Dauphin	Swan River
Brandon	Hartney	Grand View	Erwood
Morris	Carberry	Humbolt	Melfort

Also Edmonton and Strathcona

PASSENGER Through Tickets can be procured from all Railway Ticket Agents via Chicago, choice of Lines to St. Paul, thence Great Northern or Northern Pacific Railways to Emerson and Canadian Northern Railway to destination.

FREIGHT Traffic arrangements with both the Canadian Pacific and Grand Trunk Railways for the routing of freight via Port Arthur and Canadian Northern Railway.

Freight rates, folders and other information furnished on application to

GEO. H. SHAW
Traffic Manager, Winnipeg

R. H. BELL
T.F. & P. A., Montreal

WM. PHILLIPS
General Eastern Agent, Toronto

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TORONTO

St. Lawrence Floating & Wrecking Co.

CAPITAL - $200,000

OFFICERS—J. W. HARRIS, President; H. A. RICHARDSON, Vice-President
JOSEPH DURAND, Secretary-Treasurer.

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All forms of deep sea and river wrecking contracted for on "No cure no pay" basis. This company is in possession of the most perfect wrecking and salvaging equipment in the Dominion of Canada. Representatives wanted in every sea or river port in the Dominion.

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THE BRADSTREET COMPANY gathers information that reflects the financial condition and the controlling circumstances of every seeker of mercantile credit. Its business may be defined as of the merchants, by the merchants, for the merchants. In procuring, verifying and promulgating information, no effort is spared, and no reasonable expense considered too great, that the results may justify its claim as an authority on all matters affecting commercial affairs and mercantile credit. Its offices and connections have been steadily extended, and it furnishes information concerning mercantile persons throughout the civilized world.

Subscriptions are based on the service furnished, and are available only by reputable wholesale, jobbing and manufacturing concerns, and by responsible and worthy financial, fiduciary and business corporations. Specific terms may be obtained by addressing the Company at any of its offices.

CORRESPONDENCE INVITED

OFFICES IN CANADA:

Halifax, N.S.	Hamilton, Ont.	London, Ont.
Montreal, Que.	Ottawa, Ont.	Quebec, Que.
St. John, N.B.	Toronto, Ont.	Vancouver, B.C.
		Winnipeg, Man.

THOS. C. IRVING,
Gen. Man. Western Canada, Toronto.

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Through Pullmans on night and day trains without change from Montreal to New York City.

A little illustrated book of interesting excerpts from the history of railroad travel between Canada and New York will be mailed on request.

Abel I. Culver, 2nd Vice-President. **J. W. Burdick,** Pass. Traffic Man.

A. A. Heard,
Gen. Passenger Agent, - - ALBANY, N.Y

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STEEL AXLES, TYRES, AND SPRING STEEL.

"PHŒNIX" Loco. Spring Steel is the accepted Standard in Canada.

SOLE AGENTS:

James Hutton & Co., Montreal.

No. 12. Feb. 20.—Ontario—32. River St. Lawrence, Prescott, Dominion lighthouse depot, experimental lighthouse and gas buoy lights. Manitoba—33. Lake Winnipeg, Cox reef, lighthouse established. 34. Lake Winnipeg, Plunkett Island, light discontinued.

No. 13. Feb. 24.—Nova Scotia—36. South coast, Little Hope shoal, whistling buoy replaced by bell buoy. 37. South coast, off Little Hope islet, gas and whistling buoy established.

No. 14. Feb. 24.—Ontario—38. Lake Erie, Long Point change in fog alarm. 39. Lake Superior, Thunder Cape, change in fog alarm. 40. Lake Superior, Thunder Bay, Welcome Islands, lighthouse established.

No. 15. Feb. 27.—British Columbia—41. Vancouver Island, west coast, Barkley Sound, Amphitrite point, light established. 42. Seaforth channel, Regatta rock beacon destroyed. 43. Chatham Sound, Cunningham passage, Sparrowhawk rock, change in character of buoy. 44. Chatham sound, Cunningham rock, Hankin reefs, buoy established.

No. 17. Mar 6.—Nova Scotia—50. South coast Sambro whistling buoy replaced by gas and whistling buoy. 51. Cape Breton Island, south-east coast, Louisburg harbor, buoys established.

Atlantic and Pacific Ocean Marine.

The White Star line is having built at Belfast, Ireland, a new steamer to be named the Adriatic, a sister ship to the recently completed Baltic. She will be 710½ ft. in length, and have a tonnage of 23,876, or 1,124 tons less than the Baltic.

W. R. Allan has been appointed General Agent Allan Line Steamships, with office at Winnipeg, Man. His territory will include the entire Canadian Northwest from Winnipeg to the Pacific Coast. H. L. Brown, heretofore C.P.R. station agent at Winnipeg, will assist Mr. Allan.

The season of navigation at St. John, N.B., and Halifax, N.S., will be wound up at the end of the month, the last sailings of the steamers of the big lines taking place between April 21 and 28. The first passenger steamer to sail from Montreal will be the Parisian, on Mar. 4.

A bill is under consideration in the British Columbia Legislature to rectify an error in connection with the capital of the Union Steamship Co. The company was formed 16 years ago, and by an error the shares were issued at $25 each instead of $5 each, and the object of the bill is to reduce the capital accordingly.

The Canadian Government has directed the presentation of a binocular glass to Capt. F. W. Ulyatt; gold medals to Chief Officer W. Brooks, R.N.R., and A West, R.N.R.; and cash donations to several of the crew of the British S.S. Star of Australia, for saving the crew of the Canadian bark Swansea, off Cape Verde, July, 1905.

Application will be made at the current session of the Dominion Parliament for an act incorporating a company with the title of Canadian Lloyds, Limited, to carry on the business of general marine insurance and any other business incidental thereto. Ryan, Bickerdike & Gosselin, solicitors, Montreal, are acting for the promoters.

Capt. McNicholl, commodore of the Allan Line of steamers, has retired from active service, during which he has had conveyed safely across the Atlantic 150,000 passengers. He has been succeeded as commodore by Capt. Vipond, of the turbine S.S. Virginian, who retains command of that steamer, and in the command of the turbine steamer Victorian by Capt. Braes of the Tunisian.

Capt. F. Carey, of the C.P.R. str. Lake Erie, has been appointed captain of the company's new steamer Empress of Ireland, and Capt. Stewart, formerly of the company's steamer Lake Champlain, has been appointed captain of the new steamer Empress of Britain. The latter steamer will make her first voyage from Liverpool May 5, and from Montreal May 19; while the Empress of Ireland will make her first voyage from Liverpool June 23, and from Montreal July 7.

The Allan liner Parisian and the German str. Albano came into collision in Halifax harbor, Mar. 25, 1905, while they were attempting to pick up pilots, and both received considerable damage. Cross actions were brought in the Admiralty Court at Halifax, and judgment was given dismissing the action against the Parisian, and awarding damages to the Parisian as against the Albano. The nautical assessors reported that both vessels were at fault for breaking the rules of navigation. The Albano appealed against both judgments, and the Supreme Court at Ottawa has dismissed both appeals.

In 1903 the Chinese cruiser Quang Tai sank after a collision with the C.P.R. str. Empress of India, and in the litigation which ensued the courts found the C.P.R. steamer to blame and assessed the damages at £45,000 for the vessel; £18,899 9s. 7d. for the munitions of war on board; £1,110 4s. 2d. for coals, etc.; £4,756 11s. 1d. for the clothes and personal effects of the crew; and £1,163 for loss of life, a total of £70,010 3s. 0d. Recently at Shanghai, the C.P.R. asked the Supreme Court to have it declared that its total liability is £84,964 7s. 0d., and that it be at liberty to pay into court £45,314 6s. 5d., as the value of the vessel, etc., and to furnish security for £39,650 0s. 7d., in respect of other claims, and that further proceedings be stayed, except as to costs.

The S.S. Bellerophon, built at Belfast, Ireland, and the Teucer, built on the Tyne, Eng., have been completed for the Holt Line trade between Vancouver, B.C., and Japan. Neither vessel has any masts, but instead there are two pillars forward and two aft, which serve the purpose of derrick posts and are capable of lifting 36 tons. The two forward pillars are joined by a bridge which is 80 feet above the water line. In all 20 winches and derricks can be handled from the deck. The steamers have each a deadweight capacity of 13,000 tons; their dimensions being: length, 482 ft.; breadth, 58 ft.; depth, 42½ ft. They are fitted with two sets of triple expansion engines, cylinders 23, 38½ and 65 in. diameter, by 48 in. stroke; steam being supplied by three boilers at 190 lbs. pressure. Another similar steamer is under construction on the Tyne for the same owners.

A recent press report stated that the Dominion Line of Steamships, which is owned by the International Mercantile Marine Co., had placed orders on the Tyne for five or six freight steamers, and further that it was proposed to replace some of its steamers on the Montreal-Liverpool route with larger and faster ones. The officers of the company in Canada state that there is no foundation for the reports. It is probable that the first part of the story originated from the fact that the Dominion Coal Co. is having five steamers built on the Tyne, a description of which appeared on pg. 45 of our Jan. issue. That other and faster steamers will be placed on the route is not at all unlikely, as with the new steamers which the White Star Line has completed, and has still under construction, the International Mercantile Marine Co. will have the Majestic and Teutonic, which it will be able to transfer to the Dominion Line.

Maritime Provinces and Newfoundland.

Capt. B. Douglas, R.N., naval assistant to the Department of Marine, died at Halifax, N.S., Mar. 5.

The three-masted schooner Otis Miller, of St. John, N.B., has been sold to Sackville, N.B., persons for $2,800.

H. W. Harris has been appointed Government Wharfinger at L'Etete, N.B., and K. Murray Wharfinger at Main River, N.B.

F. H. Sherman, heretofore general agent of the Eastern Steamship Co., has been appointed Superintendent of the Bangor division with headquarters at Rockland, Me.

The new pier erected at Victoria Beach, N.S., by the Dominion Government is 1,350 ft. in length, and cost about $100,000. The difference between high and low water mark at the pier is 27 ft.

The Cape Breton Steamship Co.'s str. Barnes Hawkins foundered off Scattarie Island, N.S., Mar. 11, after having had her bow stove in by drift ice. She had a cargo of 770 tons of coal on board for Port Mulgrave.

At the annual meeting of the Charlottetown Steam Navigation Co., held at Charlottetown, Mar. 9, William Richards, B. Rogers, A. E. Ings, were re-elected directors. It was decided to postpone the election of a secretary in place of the late F. W. Hales.

The Maritime, Newfoundland Wreck and Salvage Co. has completed its organization, and owns the vessels Stella Maris and Bouncer. It will be in a position to undertake salvage operations early in the season. Capt. A. Manley, St. Johns, Nfld., is in charge of its operations.

Capt. A. Cameron, of Charlottetown, P.E.I., is at Walker-on-Tyne, Eng., superintending the completion of the new steamer for the Charlottetown Steam Navigation Co. He will have charge of the steamer on the voyage to Charlottetown, where she is expected to arrive in June.

W. Thomson & Sons, Halifax, N.S., have taken out papers of registration on behalf of Royal Exchange Assurance Co., London, Eng., for the purpose of doing a marine insurance business in the province. J. H. S. McClure, formerly of Montreal, will have charge of the company's business at Halifax.

The whaling companies in Newfoundland did not have very prosperous times during 1905, several of them reporting losses on the year's operations. The St. Marys Whaling Co. has decided to go into voluntary liquidation, and the Micmac Whaling Co. decided to amalgamate with the Safe Harbor Whaling Co.

The International Navigation Co. of Canada, has declared a dividend of 6% from the earnings of 1905. The company proposes to sell its str. Lady Eileen, which was built in Scotland in 1904-05, for the service and to build a larger and more commodious vessel. The run is between Campbellton, N.B., and ports in Chaleur Bay.

The operations of the Fredericton and Woodstock Steamboat Co. for 1905, resulted in a loss of several hundred dollars, and it was decided to apply to the Provincial Government for an increase of the subsidy. Following are the directors for the current year: J. S. Neill, D. Munro, Fredericton, N.B.; J. Johnson, Woodstock, N.B.; R. Scott, Dumfries; M. B. McNally, Queensburg.

The Steamship Cacouna Co., with a capital of $35,000, the Steamship Louisburg Co., with a capital of $48,000, and the Steamship Carbon Co., with a capital of $45,000, have been incorporated under the Dominion Companies' Act, to purchase the Cacouna, Louisburg and Cape Breton respectively, or other steamers, and to carry on a general

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BECAUSE—They are made of HIGH CARBON STEEL, nearly 50% stronger than other wire, our No. 9 gauge testing 2,400 lbs., against 1,700 lbs. in others. Hence, our wire will not stretch and show sags or bags where stock has run into it, or where people have climbed over it.

Fencing of all No. 9 wire supplied when desired.

THE PAGE WIRE FENCE COMPANY, Limited

Walkerville **Montreal** **Toronto** **St. John**

C.P.R. LANDS

THE CANADIAN PACIFIC RAILWAY COMPANY have 10,500,000 acres of choice farming lands for sale in Manitoba, Saskatchewan and Alberta. Ranching lands generally $4.00 to $5.00 per acre. Lands adapted to grain growing and mixed farming $5.00 to $15.00 per acre according to quality and location. Maps showing the lands in detail will be sent free on application.

TERMS OF PAYMENT.

An actual settler may purchase not more than 640 acres, on the ten instalment plan by paying a cash instalment at time of purchase, interest at six per cent. on the unpaid purchase money at the end of the first year, and the balance of the principal with interest in nine equal instalments annually thereafter as shewn in the following table :—

160 Acres at	$4.00	per acre,	cash payment	$95.85,	first year's interest	$32.64	and nine instalments of	$80.00
" "	4.50	"	"	107.85,	" "	"	36.73	"	"	90.00
" "	5.00	"	"	119.85,	" "	"	40.81	"	"	100.00
" "	5.50	"	"	131.80,	" "	"	44.89	"	"	110.00
" "	6.00	"	"	143.80,	" "	"	48.98	"	"	120.00
" "	6.50	"	"	155.80,	" "	"	53.05	"	"	130.00
" "	7.00	"	"	167.80,	" "	"	57.16	"	"	140.00
" "	7.50	"	"	179.75,	" "	"	61.22	"	"	150.00
" "	8.00	"	"	196.70,	" "	"	65.28	"	"	160.00

Purchasers who do not undertake to go into residence on the land are required to pay one-sixth of the purchase money down, balance in five equal annual instalments with interest at the rate of 6 per cent. per annum.

Interest at six per cent. will be charged on overdue instalments.

F. T. GRIFFIN,
Land Commissioner C.P.R. Co., Winnipeg.

CANADA NORTH-WEST LAND CO

This Company has 650,000 acres of selected lands in Manitoba and Assiniboia which offer excellent opportunities to settlers and investors who desire to secure good lands in well-settled districts. These lands are on sale at the Company's Office at Winnipeg, and at the various land agencies of the Canadian Pacific Railway Company.

THOMAS FIRTH & SONS
LIMITED

MONTREAL STEEL WORKS
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AGENTS FOR CANADA

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"SPEEDICUT" HIGH SPEED STEEL, TOOL STEEL, AXE STEEL, SAW STEEL, FILES, ETC.

A large stock carried in our warehouse.

86 McGill Street, MONTREAL

Canadian Pacific Railway Company

ISSUE OF NEW ORDINARY CAPITAL STOCK.

NOTICE is hereby given that pursuant to Resolutions passed at the Special General Meeting of Shareholders on 19th March instant, a new issue of the Ordinary Capital Stock of the Company to the amount of $20,280,000, in 202,800 shares of $100 each, will be offered at par to the ordinary shareholders of record at the closing of the books for the purpose, on the basis of 20%, or one share in five of their then respective holdings.

The Books of the Company will be closed for this purpose in London, New York and Montreal at 3 p.m. on Friday, April 20th, and re-opened on Monday, May 7th, 1906.

The right to subscribe will expire at 3 p.m. on May 25th, 1906.

Payments will be received at the Bank of Montreal, London, New York or Montreal, as follows:—

20% or $20 per share on subscription, on or before May 25th, 1906.

20% or $20 per share . . . July 26th, 1906.
20% or $20 per share . . . Sept. 26th, 1906.
20% or $20 per share . . . . Nov. 26th, 1906.
20% or $20 per share . . . . Jan. 25th, 1907.

The new stock upon which all payments have been duly made as called for will rank for dividend for the half-year ending December 31st, 1906.

A Circular containing the terms of subscription and enclosing warrants of subscription will be mailed to the Shareholders after the closing of the books as above stated.

Dated at Montreal this 20th day of March, 1906.

By Order of the Board,
CHARLES DRINKWATER,
Secretary.

1906

ONTARIO JOCKEY CLUB

TORONTO, CANADA

SPRING MEETING

MAY 19th to June 2nd
(inclusive)

RACING AND STEEPLE-CHASING

THE KING'S PLATE
WILL BE RUN ON
SATURDAY, MAY 19th

SIX OR MORE RACES EACH DAY

WM. HENDRIE President — **W. P. FRASER** Sec.-Treas.

GOD SAVE THE KING

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LARGEST IN CANADA

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navigation business. The provisional directors in each case are:—F. W. Warren, W. H. Covert, J. K. L. Ross, H. J. McCann, Sydney, N.S.; E. H. Russell, Glace Bay, N.S. These steamers are owned by the Dominion Coal Co., and the new companies have been incorporated with a view of operating them to greater advantage than can be done by the Coal Co. direct. The provisional directors are associated with the Coal Co., and the offices of the new companies are at Sydney. It is stated that the other steamers owned by the Coal Co. are to be similarly transferred to separate operating companies.

The fleet of steamers to be operated by the Dominion Coal Co. during the season of 1906 includes five steamers owned by the company; three steamers under construction, which will be chartered, eleven others under charter, one tug and three barges. The steamers owned are:—

	Tons.
Cape Breton (dead weight capacity)	2,500
Louisburg " " " "	2,450
Cacouna " " " "	1,950
Bona Vista " " " "	1,600
Coban " " " "	1,350
	9,850
Douglas H. Thomas—Tug.	
Grandee, barge, d.w.c.	1,800
Alice " "	450
Lizzie " "	450
	2,700

STEAMERS CHARTERED.

Chr. Knudsen, d.w.c.	6,850
Finn "	6,600
Hektor "	6,550
Hermes "	6,550
Dominion "	6,100
Catalone "	6,000
Mystic "	6,000
Tancred "	5,850
St. Andrews "	4,800
Elmer "	4,700
Pors "	850
	60,850

Two steamers of 7,000 tons dead weight capacity each, and one of 5,000 tons dead weight capacity are under construction. The totals are:—

	Tons.
5 steamers owned, d.w.c.	9,850
11 steamers chartered "	60,850
3 steamers building "	19,000
3 barges "	2,750
1 tug "	
23 vessels having a d.w.c. of	92,450

Province of Quebec Marine.

The Montreal Harbor Commissioners propose to erect a bridge from Commissioners St. to Victoria pier, at a cost of about $11,000.

S. Chapados has been appointed Government Wharfinger at Anse-aux-Gascons, Que., and O. Denis, Wharfinger at Paspebiac, Que.

The Montreal Harbor Commissioners discharged all its officers prior to a rearrangement of duties of the different departments. The proposed alterations will, it is stated, bring about a considerable saving in expenses.

The channel in Montreal harbor is to be swept as early as possible after the opening of navigation, in order to clear it of any obstructions to navigation. The work will be done by direction of the Harbor Commissioners.

The Quebec and Levis Ferry Co. has made considerable improvements to its wharf property and to its steamers during the winter. The steamers have been almost entirely rebuilt, spaces having been apportioned for passengers and for vehicles, and at the slips a sidewalk has been constructed for passengers.

The Ottawa River Navigation Co.'s str. Sovereign was burned to the water's edge at her wharf, Lachine, Mar. 17. The Sovereign was a paddle-wheel steamer with engines of 400 h.p., built at Montreal in 1889, her dimensions being: length, 162.4 ft.; breadth, 25.5 ft.; depth, 7.4 ft.; tonnage, gross, 636 tons; register, 323 tons.

The Montreal and Great Lakes Transportation Co. has been organized at Montreal, to operate a line of steamers between that port and the Upper Lakes. The officers and directors are: President, R. Bickerdike, M.P.; Vice-President, J. H. Hall, Ottawa; Managing Director, C. A. Jaques, Montreal; other director, S. S. Samuel, Toronto.

A deputation representing the Shipping Federation of Canada recently met the Minister of Marine to discuss the improvements required in the St. Lawrence River between Montreal and Farther Point. One of the principal matters discussed was sweeping the channel, and Mr. Allan suggested the purchase of a vessel for this special purpose.

The question of the height of the bridge being constructed at Quebec, above high water mark, has been discussed of late in the technical magazines, and a doubt is expressed as to its bearing on the future of the port of Montreal. A question was asked on the subject in the House of Commons, and it was stated that the height of the bridge was sufficient to give clearance to steamers of much larger size than those now in the trade or under construction. H. A. Allan, of the Allan Steamship Line, said that the height of the bridge had not caused any serious apprehension to steamship owners.

The contract for the maintenance of a wrecking plant on the St. Lawrence is held by G. T. Davie & Son, Quebec, the annual subsidy paid by the Department of Marine is $10,000. The contractors agree to keep the wrecking steamer Lord Strathcona, or other steamer equal to her in all respects, with proper and sufficient wrecking plant and up-to-date and proper pumps, attendant schooner and such skilled labor and such other plant as may be required, in constant commission at Quebec, during the entire season of navigation; the said vessel, plant, etc., to be at all times available for the purpose of affording aid to vessels in distress in the river or gulf of St. Lawrence, and shall be employed for no other purpose. After Oct. 15, the vessel shall not be obliged to go to the assistance of any vessels in distress at any point further down the gulf than Cap Chatte. The contractors must, at all times, during the performance of the contract, abide by and conform to all such orders and regulations as may be made by the Minister with regard to the business of the said steamer in the performance of the contract.

Ontario and the Great Lakes.

Capt. G. C. Coles, of Collingwood, Ont., is having a 20 h.p. gasolene launch, 33 ft. long, by 9 ft. beam, built.

Capt. T. J. Craig, of Kingston, Ont., has passed his examination as master of a passenger steamship navigating in salt water.

Capt. T. Donnelly, Kingston, Ont., has been appointed surveyor for Canada for the British Corporation of the Registry of Shipping, Glasgow, Scotland.

Capt. H. Sarvis, for the last few years a resident of Port Arthur, Ont., but formerly well known in Upper Lakes marine circles, died at Port Arthur recently.

An order has been placed in Toronto for a new steamer for the C.P.R. Upper Lakes trade. The dimensions and plans have not been finally determined upon.

An Order-in-Council has been passed authorizing the name of the tug J. K. Secor, official no. 116,313, registered at Amherstburg, Ont., to be changed to that of Winner.

The str. Ojibway (formerly known as the A. J. Tymon) was slightly damaged by a fire on board, Mar. 7. The steamer has been lying at the Yonge St. wharf during the winter.

The str. R. A. Packer, of Bay City, Mich., has been rebuilt for Gauley Bros., and will be renamed Batachawana. Her dimensions are: length, 209 ft.; breadth, 34 ft.; depth, 16 ft.; gross tonnage, 921 tons.

The str. Wherenow has been chartered by the Rathbun Co. for use as a ferry between Gananoque, Ont., and Clayton, N.Y. Heretofore she has been running during the season between Kingston and Thousand Islands Park.

Later information states that it has been arranged to have the steamer run between Charlotte, N.Y. and Toronto daily during the exhibition, and from Sept. 12 to Nov. 1 she will run between Charlotte and Ogdensberg, N.Y.

The suit entered in connection with the proposal to transfer the str. City of Windsor to the Northern Navigation Co. has not been settled, but the sum in dispute has been paid into court, and the steamer handed over to the N.N. Co.

The New Ontario Navigation Co. is seeking to recover damages from the Montreal Transportation Co., for the injury to the str. Neepawa in the Welland Canal, in 1904, caused, as alleged, by the negligence of the crew of the Westmount.

The Reid Wrecking Co.'s tug Salvor sank at her moorings, Holland, Mich., recently. The tug had been engaged in salvage operations in U.S. waters in the fall, and was laid up with the U.S. tugs engaged in the same service at Ottawa Beach for the winter.

The first vessel arriving in Toronto for the season of navigation, 1906, was the Hamilton Steamboat Co.'s Macassa, which arrived on Mar. 10. She made an attempt earlier in the week, but had to give it up, the ice in Hamilton bay being too heavy for her to break through.

Current reports in Rat Portage and Fort Francis, Ont., state that the steamers of the Rainy River Navigation Co., will probably be sold, and that it is understood that the Canadian Northern Ry. and the Duluth, Rainy River and Winnipeg Ry. will be interested in the purchase.

The Canadian Pacific Car and Passenger Transfer Co. has offered to the municipalities of Brockville, Ont., and Morristown, N.Y., one of its ferry steamers as a ferry between these two points. The financial statement showed a loss of $2,743.49 in operating the ferry during the last six years, not including interest or depreciation in value of the property. No action has been taken in the matter.

The Mathews Steamboat Co., of which J. and J. T. Mathews, Toronto, are managers, is having a steamer built in Great Britain. Unconfirmed reports state that her dimensions will be: length, 356 ft.; breadth, 47 ft. 6 in.; depth, 23 ft.; that she will have a capacity of 110,000 bush. on the Upper Lakes, or 70,000 to Montreal, and will have a speed of 12 miles an hour. As the locks on the canal system are 270 ft. by 45 ft., there must be some error in the reported dimensions.

The keel has been laid at Meaford, Ont., for a new steamer for J. Perks & Son. The dimensions of the new steamer will be: length over all, 117 ft.; breadth, 24 ft.; moulded depth, 10 ft. The engine will be constructed at Goderich, Ont., and will be of the fore and aft compound type, cylinders, 14 and 28 in., by 18 in. stroke; the boiler to have a working steam pressure of 125 lbs. Although primarily a freight carrier, accommodation will be provided for a number of passengers.

The Erie and Ontario Dredging Co. has been incorporated under the Dominion Companies' Act, with a capital of $96,000, and offices at Welland, Ont., to carry on a general contracting, dredging, towing, wrecking and salvage business in all branches on any of the rivers, harbors, lakes, bays or streams of Canada; and in connection

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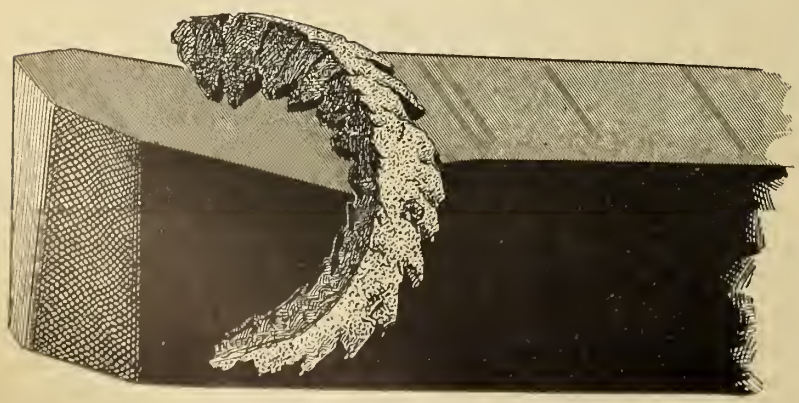

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therewith to build or charter steam and other vessels, dredges, etc. The provisional directors are:—D'A. Scott, Ottawa; E. A. C., G. S. Pew, Toronto; E. J. Hingston, S. J. Dark, Buffalo, N.Y.

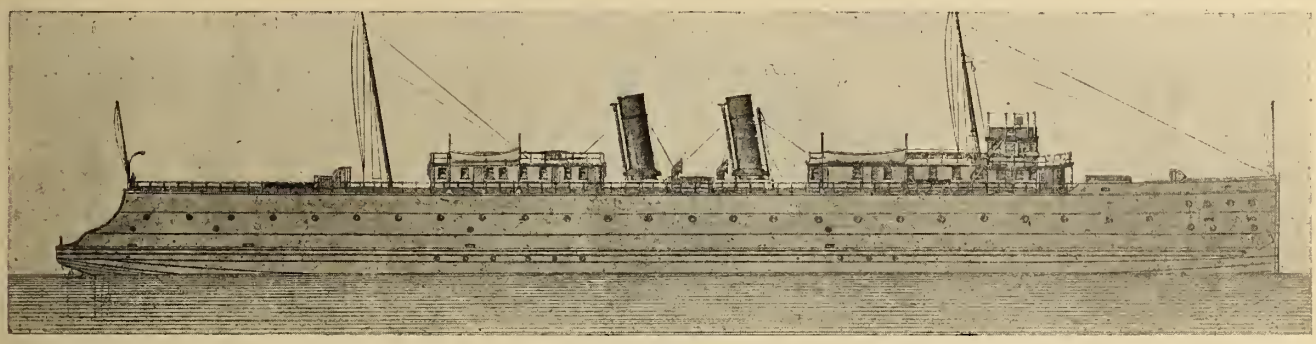
The St. Lawrence Transportation Co. has been incorporated under the Dominion Companies' Act, with a capital of $20,000 and offices at Toronto, to acquire steam and other vessels, to carry on a general navigation business and in connection therewith to construct and operate elevators. The incorporators and provisional directors named are all in the office of a Toronto legal firm. Under the provisions of the act respecting the licensing of extra provincial companies, the company has been registered in Ontario, J. S. Lovell, Toronto, being appointed its attorney.

The package freight str. Arabia has been purchased by Jaques & Co., Montreal, and is being fitted up as a passenger and freight steamer. The Arabia is an iron screw steamer, built at Buffalo, N.Y., in 1873, and classed A1½; her dimensions are: length, 222 ft.; breadth, 34 ft.; depth, 14 ft.; gross tonnage, 1,395 tons. She is fitted with engines of the double steeple compound type, 20 and 40 in. cylinders, by 36 in. stroke; steam being supplied by a fire-box boiler, 10 by 18. The steamer will be put on a run between Montreal and Upper Lake ports in conjunction with the City of Montreal, which was put on the run in 1905.

The Rainy River Navigation Co. has been incorporated under the Dominion Companies' Act, with a capital of $99,000, and offices at Mattawa, Ont., to carry on a general navigation business. The provisional directors are:—L. H. Timmins, J. Loughrin, A. Ferland, C. W. Haentschel, Mattawa; G. H. Rochester, C. A. McCool, Ottawa. The company proposes to acquire the steamers, wharves, etc., of the Lumsden Line, operated on Lake Temiskaming. The organization has been completed as follows:—President, L. H. Timmins, Mattawa, Ont.; Vice-President, J. Loughrin, Mattawa, Ont.; Managing Director, G. H. Rochester, Ottawa; Manager, J. A. Larochelle, Mattawa, Ont.; other directors, C. W. Heantschel, M.D., N. Tobias, Ville Marie, Que.; M. J. Malone, North Temiskaming, Que.

The Temiskaming Navigation Co. has been incorporated under the Dominion Companies' Act, with a capital of $99,000, and offices at Mattawa, Ont., to carry on a general navigation business. The provisional directors are:—L. H. Timmins, J. Loughrin, A. Ferland, C. W. Haentschel, Mattawa; G. H. Rochester, C. A. McCool, Ottawa. The company proposes to acquire the steamers, wharves, etc., of the Lumsden Line, operated on Lake Temiskaming. The organization has been completed as follows:—President, L. H. Timmins, Mattawa, Ont.; Vice-President, J. Loughrin, Mattawa, Ont.; Managing Director, G. H. Rochester, Ottawa; Manager, J. A. Larochelle, Mattawa, Ont.; other directors, C. W. Heantschel, M.D., N. Tobias, Ville Marie, Que.; M. J. Malone, North Temiskaming, Que.

The Rochester and Ogdensburg Navigation Co. has been organized at Ogdensburg, N.Y., E. B. Capron being elected President; G. Phillips, Secretary, and D. R. Armstrong, Treasurer. The Company has an authorized capital of $50,000 and proposes to operate a freight and passenger service on Lake Ontario and the St. Lawrence River. The company's plans provide for running into Kingston, Ont., three times a week. The str. State of New York, heretofore running on the Toledo-Cleveland line, has been purchased, and will be fitted out in Detroit, Mich., for her new run. The State of New York is an iron paddle wheel steamer, built at Wyandotte, Mich., 1883, and classed A1½. Her dimensions are: length, 203 ft.; breadth, 32 ft.; depth, 10 ft.; gross tonnage, 808 tons. She is fitted with compound beam engines, 36 x 80 and 44 x 120, steam being supplied by two fire-box boilers 12¾ x 18. The steamer is expected to be on her new route June 1. The guards will have to be removed to bring her through the Welland Canal.



C.P.R. CAR-FERRY

The Port Huron and Duluth Steamship Co. has been operating for a number of years between Port Huron, Mich., and Duluth, Minn., in connection with the G.T.R. The company operated two vessels, the Russia and the Wyoming, under charter, and has recently purchased the former. The Russia was built at Buffalo, N.Y., 1872, her dimensions being:—length, 232 ft.; breadth, 36 ft.; depth 13 ft; and her gross tonnage 1,501 tons. She is fitted with steeple compound engine, cylinders 24 and 40 in. diameter by 36 in. stroke, steam being supplied by two Scotch boilers, 10 by 11½ ft. C. O. Duncan, Port Huron, is the company's Traffic Manager.

The International Waterways Commission met at Toronto, March 6, and after discussing a number of matters, adjourned to meet at Washington, D.C., April 6. G. Gibbons, chairman of the Canadian section of the Commission, stated in an interview after adjournment: "No definite conclusion has been reached in the various items which engaged the attention of the Commission. We have practically left all the matters over until next month, when definite arrangements will be made concerning the regulation of Niagara water power, the Michigan Central tunnel construction under the Detroit River and the Soo proposition. The engineers' reports have virtually been agreed upon by all the members."

The Montreal Transportation Co. has purchased the Kingston and Montreal Forwarding Co. The barges owned by the latter company, which will be operated by the Montreal Transportation Co. are 13 in number, having a total capacity of 413,000 bush., distributed as follows:—Beauport, 26,000; Bismarck, 25,000; Cherokee, 28,000; Condor, 40,000; Dakota, 38,000; Hiawatha, 40,000; Huron, 36,000; Iroquois, 28,000; Jet, 24,000; Lapwing, 40,000; Princess, 22,000; Siren, 24,000; Thrush, 42,000. These barges will be used in the company's regular trade between Kingston and Montreal for grain, and will also be used in carrying coal from Lake Ontario points and pulpwood from the Lower St. Lawrence.

The officers and directors of the Rainy River Navigation Co., for the current year, are:—President and Manager, G. A. Graham; Vice-President, W. Ross; other directors: J. T. Horne, C. Lewis, H. Williams; Secretary-Treasurer, M. McCulloch. We have been advised that it has not been decided what steamers will be operated during the coming saeson, the reason for the delay being that nothing is known as to the improvements which may be made at the Sault rapids of the Rainy River by the Dominion Government. The question of hotel accommodation for tourists at Kenora, Ont., is another factor. At present this is limited, the project of the construction of a tourist hotel on the lake front either by the C.P.R. or a private company, which has been discussed for several years, still being in abeyance.

The car ferry which is under construction at Detroit, Mich, by the Great Lakes Engineering Co., for the C.P.R., the Pennsylvania Rd., and the J. W. Ellsworth Co., to run between Ashtabula, Ohio, and Port Burwell, Ont., will be what is known as the enclosed type for open lake service, her dimensions being:—length over all, 350 ft.; breadth, 56 ft.; depth 20½ ft. She will be provided with four tracks, having accommodation for 30 cars and capable of carrying 1,500 tons of coal on each trip. She will be equipped with two triple-expansion engines, cylinders 19½, 32 and 54 in. diameter, by 36 in. stroke, steam being supplied by four Scotch boilers, 13 ft. 2 in., by 12 ft., at 175 lbs. pressure; capable of giving a normal speed of 12 miles an hour. The hull will be of steel, and accommodation will be provided for the crew, and there will also be three staterooms for the managing owner. The staterooms and bathrooms, etc., will be equipped throughout in the most modern style.

A return has been issued by J. J. O'Connor, Port Arthur, Ont., showing the shipment of grain during the season of navigation from April 25 to Dec. 12. One table shows the names of the vessels engaging in the trade, the total quantities of wheat, oats, barley and flax carried during the season, in comparison with 1904. There were engaged 45 Canadian steamers, 4 Canadian schooners, and two Canadian barges; 65 U.S. steamers and four U.S. schooners. The Canadian vessels carried 29,371,881 bush. of wheat; 527,561.26 bush. oats; 345,392 bush. barley, and 334,966.48 bush. flax; while the U.S. vessels carried 11,653,964 bush. wheat; 195,851.16 bush. oats and 18,829.52 bush. flax. The second table gives the ports to which the shipments were made, and shows how much was shipped in Canadian and how much in U.S. vessels, as between April 25 and Aug. 31, and Sept. 1 and Dec. 12.

Port	Canadian Vessels bush.	U.S. Vessels bush.	Total bush.
Buffalo...	670,004.50	10,675,494.70	11,285,498.80
DepotHar.	8,887,163.30	.....	8,887,163.30
Montreal..	6,581,855.50	.....	6,581,855.50
Midland...	2,734,710.00	.....	2,734,710.00
O'n Sound	2,474,175.30	.....	2,474,175.30
Pt. Edw'd.	2,273,846.20	.....	2,273,846.20
Goderich..	1,895,710.40	.....	1,895,710.40
Port Hur-on, Mich.	1,228,352.40	435,202.60	1,663,555.00
Kingston..	965,625.40	.....	965,625.40
Erie, Pa...	212,183.00	543,266.30	755,449.30
Meaford...	596,913.10	.....	596,913.10
Coll'gw'd..	578,054.40	.....	578,054.40
Thorold...	171,072.50	.....	171,072.50
Pt. Colb'e.	135,213.00	.....	135,213.00
Detroit...	37,000.00	.....	37,000.00

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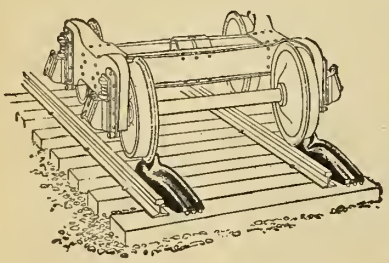

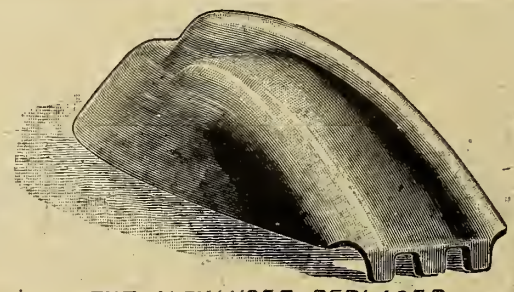

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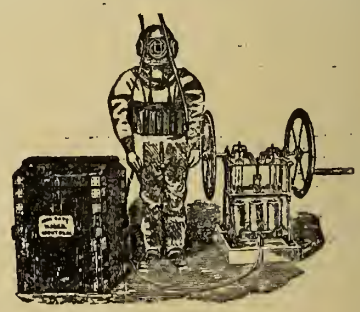

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A motor launch building works has been started at Edmonton, Alta., and orders for half a dozen launches, fitted with motors from 2 h.p. to 5 h.p., have been received.

Revellion Freres Limited, which has been given a supplemental charter by the Dominion Government to enable it to carry on and extend its operations throughout Canada, has for some years, been running boats on the Arthabaska River and connecting waters.

The Selkirk, Man., Board of Trade has been informed that the Dominion Department of Public Works proposes undertaking extensive works of improvement at the mouth of the Red River at an early date, and that Parliament would be asked, at its current session, to vote the necessary funds.

A matter of interest and importance to Winnipeg and to those engaged in navigation on the Red River, has been under discussion at Grand Forks, N.D. The North Dakota Drainage League held a meeting Feb. 27, which was attended by Hon. Dr. McFadden, representing the Manitoba Government; the Mayor of Winnipeg, and others from Manitoba. The question under discussion was the annual overflow of the Red River, and a resolution was passed asking the Canadian and the U.S. Governments to join in having full surveys made, with a view of preventing the flooding, and of improving the navigation in the river. The suggestion is to cut a canal from Lake Traverse across the divide, to Big Stone Lake, and so divert some of the water running into the Red River into the Minnesota River; to dredge the Red Lake River for some 15 miles from the lake, and then build a dam so as to regulate the flow of water, and to construct a dam on the Pembina River. The cost of the several works is estimated at $5,000,000. A resolution approving of these proposals was adopted, Hon. Dr. McFadden stating that the Manitoba Government would give it support.

B.C. and Pacific Coast Marine.

Hon. A. Morrison has been appointed Deputy Judge in Admiralty of the Exchequer Court of Canada for the British Columbia Admiralty District.

A large barge pile driver has been launched at New Westminster, B.C., for the A.B.C. Packing Co., for use at the canneries and salmon traps on the west coast of Vancouver Island.

An Order-in-Council has been issued defining the boundaries of the harbor of Ladysmith, B.C., and declaring that the provisions of the act respecting Harbor Masters shall apply thereto.

It is proposed to tow the wrecked str. Portland from the Ketchikan beach, where she has been all winter, to Seattle, Wash., for repairs. The underwriters' surveyor reports the hull to be in good condition.

The str. Transfer has been given a general overhaul at Victoria, B.C., and she left Mar. 4, for New Westminster. She has been placed on the New Westminster-Steveston run, in place of the Rithet, which has gone to Victoria.

The Esquimalt and Nanaimo Ry. is having built at Victoria a large car barge, capable of carrying 15 cars, for use between the Island and the mainland. The barge will be 245 ft. long, 42 ft. beam, and will have a depth of 13 ft. 6 in.

The C.P.R. str. Princess May is having three new single-ended boilers installed in place of the two old double enders, and is having a number of improvements made to her upper works. The company's str. Charmer is also being given an overhaul.

H. Sproat, marine engineer, formerly with the Columbia and Kootenay Navigation Co., and latterly engaged in the Yukon trade, died recently at Victoria, B.C. His experiments with engines for stern-wheel steamers resulted in many improvements being made.

The Department of Marine has arranged for the placing of two lifeboats on the Vancouver Island coast. One will be kept on the wrecking steamer ready for use at any point where its services may be required, and the other will be stationed on Bamfield Inlet.

The Westminster Fish and Towing Co. has placed an order for a new tug at New Westminster, B.C., to have the following general dimensions:—length, 80 ft.; breadth, 16 ft.; draught, 7½ ft. She will be fitted with compound engines, cylinders 9 by 20 inches, and 15 in. stroke, and the boiler will carry 160 lbs. working pressure.

Among the Express Companies.

The Canadian Ex. Co. has opened offices at Nash's Creek and Nelson, N.B.

R. Thom, agent for the Canadian Ex. Co., Stayner, Ont., died there March 1, aged 60.

The manager of the Maritime Ex. Co. is W. Fraser, Traffic Superintendent Dominion Atlantic Ry.

The Dominion Ex. Co. has given a donation of $1,000 towards the funds for the erection of a new general hospital at Toronto.

V. G. R. Vickers, Superintendent Dominion Ex. Co., Montreal, has been proposed for membership on the Montreal Board of Trade.

The New Brunswick Government collected $250 each from the Dominion Ex. Co., and the Canadian Ex. Co., for business tax during 1905.

The Dominion Ex. Co. has opened offices at Alderside, Daysland, Exshaw, Alta.; Buxton, Dunsford, Gillies' Depot (formerly Cassidy), Glanworth, Ont.; Cardwell, Komura (formerly Togo), Oncree, Sask.

The Dominion Ex. Co., we are advised, while having acquired land for the erection of stables at Vancouver, B.C., does not intend to build at present. The purchase was made in anticipation of future needs.

The Dominion Ex. Co. and the Canadian Northern Ex. Co. has arranged terms for the interchange of business between points in the exclusive territory of each. The new arrangement came into force Mar. 10.

The Dominion Ex. Co. announces that it will now accept money and valuables for transit to Cobalt, Haileybury, Latchford and New Liskeard, Ont., on the Temiskaming and Northern Ontario Ry., but not to any other points on the line.

A bill before the New Brunswick Legislature proposes to amend the liquor license act declaring it to be an offence for any wholesale liquor dealer to send C.O.D. by express or otherwise to any place where the Canada Temperance Act is in force, and providing penalties for breaches of the act. The penalties are the cancellation of the consignor's license; a fine of from $40 to $100 against the manager or agent of the express company, or other persons guilty of the offence.

In the case of Smith against the Canadian Ex. Co., which was originally tried by the County Judge of Wentworth, Ont., the plaintiff recovered damages for the misdelivery of trees. The trees were intended for Aylmer, Que., but were wrongly sent to Aylmer, Ont. When they reached Aylmer, Que., the consignee refused to accept them, and the consignor sued the express company for the price of the trees. A division court has now set aside that judgment on the ground that the refusal of the consignee to accept delivery put an end to the transitu.

The Canadian Ex. Co. has rearranged in some respects the divisions and routes into which its territory is divided, the new boundaries, etc., being as follows:—

SUPERINTENDENTS.—J. H. Sparling, Western Division (which includes Northern and Midland divisions, except that portion of the division between Belleville and Peterboro and between Whitby and Manilla Jct.) Headquarters, Toronto.

H. C. Creighton, Atlantic Division, has charge of all details on Intercolonial Ry. east of River du Loup and of all lines operated in the Maritime Provinces. Headquarters, St. John, N.B.

R. Murphy, Assistant Superintendent, has charge of Central and Eastern Divisions (including the portions of Midland Division between Belleville and Peterboro and between Whitby and Manilla Jct.). Headquarters, Montreal.

ROUTE AGENTS.—E. Allen, Toronto, Ont., has charge of the following routes:—Nos. 4 (west of Port Union), 18 (Peterboro to Lakefield only), 19, 20, 22, 23, 24, 32, 33, 34, 72 (west of Kearney), and 99, reporting to Superintendent Sparling.

H. M. Gain, Richmond, Que., has charge of the following routes:—Nos. 1, 2 (east of Point St. Charles), 7, 8, 11, 52, 53, 54, 85, 86, 89 and 110, reporting to Assistant Superintendent Murphy.

J. P. Hetherman, Toronto, has charge of the following routes:—Nos. 5 (west of Parkdale), 13, 38 (North of Guelph), 39, 43, 45 (north of Palmerston), 46, 48 (north of Georgetown), 49, 50, 51 and 107, reporting to Superintendent Sparling.

G. W. Hickey, Hamilton, Ont., has charge of the following routes:—Nos. 12, 16, 26, 27 (Hamilton to Eastwood inclusive), 29, 30, 31, 36, 38 (Harrisburg to Hespeler inclusive), 42, 44, 47, 48 (Hamilton to Milton inclusive), 106 and 108, reporting to Superintendent Sparling.

H. N. Lingley, Truro, N.S., has charge o the following routes:—Nos. 57 (Amherst to Halifax), 60, 61, 62, 63, 64, 66, 91, 96, 97, 98, 100, 102, 111, 116, 117, 118, 119 and 120, reporting to Superintendent Creighton.

B. S. Murray, London, Ont., has charge of the following routes:—Nos. 6, 14, 15, 17, 27 (Woodstock to London), 28, 35, 37, 40, 41, 45 (Stratford to Listowel inclusive), 103 and 115, reporting to Superintendent Sparling.

F. Norman, Montreal, has charge of the following routes:—Nos. 3 (Montreal to Coteau inclusive), 9, 10, 67, 68, 69, 70, 71, 72 (Madawaska to Kearney inclusive), 73, 84, 87, 88, 112, 113 and 114, reporting to Assistant Superintendent Murphy.

A. M. Patterson, St. John, N.B., has charge of the following routes:—Nos. 55, 56, 57 (Moncton to Aulac inclusive), 58, 59, 65, 90, 92, 93, 94, 95, and 101, reporting to Superintendent Creighton.

G. H. Waterhouse, Kingston, Ont., has charge of the following routes:—Nos. 3 (River Beaudette to Kingston), 4 (Kingston to Port Union inclusive), 21, 25, 77, 78, 79, 80, 81, 82, 83, and 109, reporting to Assistant Superintendent Murphy.

At offices where route agents meet the one in charge will be as follows:—Allandale, Barrie, Manilla Jct., Peterboro, Toronto, E. Allen. River du Loup, River a Pierre, H. M. Gain. Berlin, Stratford, Palmerston, J. P. Hetherman. St. Thomas, Woodstock, B. S. Murray. Coteau, F. Norman. Agents between Belleville and Peterboro and between Whitby and Manilla Jct. will note they are now placed in Assistant Superintendent Murphy's instead of Superintendent Sparling's Division as heretofore, and report accordingly.

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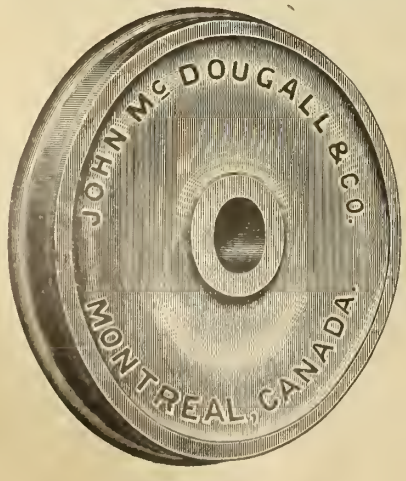

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Telegraph and Cable Matters.

The Newfoundland Government proposes making a number of improvements in the wireless telegraph stations on the Labrador coast during the current season.

The Anglo-American Telegraph Co. is considering the possibility of removing its station at Placentia, Nfld., to the Jersey side, owing to the cables laid across the gut there being continually damaged by anchors.

The Dominion De Forest Wireless Telegraph Co. has made arrangements with the De Forest Wireless Telegraph Syndicate to build two stations, one on the Irish coast and one on the Canadian coast, for trans-Atlantic communication.

The Reid Newfoundland Co.'s str. Bruce has been equipped with Marconi wireless telegraph apparatus, and it is expected that a contract will be made for installing the apparatus on one or more of the steamers on the Labrador run.

The Department of Marine proposes to construct three Marconi wireless telegraph stations on the Pacific coast, but the localities of the stations, and the details in connection with their equipment have not been finally decided.

Marconi wireless telegraph stations have been constructed by the Department of Public Works at the Citadel, Quebec, and on the quarantine island, as a reserve in case of the breaking of the cable. The stations will also be used for reporting vessels during the season of navigation.

Commander Spain has prepared a report upon the Marconi wireless telegraph stations established by the Dominion Government. There are ten high power stations and three low power stations, a list of which appeared on pg. 79 of our Feb. issue. Six of the Government steamers have also been fitted with the apparatus. The initial cost of each high power station is $8,500, and of each low power station, $5,000, and the annual cost of maintenance is about $1,800. The cost of equipment of each vessel is about $1,550.

The Northern Commercial Telegraph Co. will apply at the current session of the Dominion Parliament for an act authorizing it to extend its operations and undertaking throughout Canada; to increase its capital stock and for other purposes. The company was incorporated by an act passed in 1898, power being given to construct land telephone and telegraph lines in British Columbia and the Yukon Territory, and to connect the same by cables. Power was given in 1899 to construct branch lines and in 1900 the capital was increased to £500,000. The offices of the company are in London, Eng., and the incorporators were: Lord Thurlow, T. Van Puten, London, Eng.; E. Friedburg, described as "of the county of Surrey, Eng."; W. Baird, W. Naismith, Vancouver, B.C.; A. Haley, Windsor, N.S.; I. Burpee, St. John, N.B.

An offer has, it is understood, been made through the G.T.R. by the trustees of the Carnegie Hero Fund to provide gold medals and other substantial awards for the men who risked their lives in the disaster at Sarnia tunnel, Oct. 9, 1904, when four men were suffocated, owing to the breakdown of a train.

The Central New York Telephone and Telegraph Co. is expending a considerable sum in improving its service in the Thousand Islands territory. One of the new cables to be laid will be for the purpose of giving a direct connection between Cape Vincent, N.Y., and Kingston, Ont., and another will be laid from Massena Point, N.Y., to Cornwall, Ont.

The Mackay Companies.

The trustees, in their annual report, state: The Mackay Companies owns the whole or part of the capital stock of 74 prosperous cable, telephone and telegraph companies in the United States, Canada and Europe, including the entire capital stock of the Commercial Cable Co., and the various companies constituting the land line system, known as the Postal Telegraph. The Mackay Companies is one of the largest stockholders in the American Telephone and Telegraph Co., commonly known as the Bell Telephone Co. During the past year the Mackay Companies has acquired the control of the North American Telegraph Co., which for 20 years has owned and operated a telegraph system in Minnesota, Wisconsin, Iowa and Illinois, the stockholders of that Co. having exchanged a portion of their stock for preferred shares in the Mackay Companies. The Mackay Companies has no debts. Its authorized capital is $50,000,000 preferred shares, and $50,000,000 common shares, of which there are outstanding $40,645,600 preferred shares and $41,380,400 common shares. During the past year the outstanding common shares have not been increased. The preferred shares have been increased by $4,676,900, issued in exchange for stock in corporations, which, in addition to strengthening the position of the Mackay Companies, pays as much or more dividends than the corresponding dividends on the Mackay Companies' preferred shares. The Mackay Companies, in its investments, confines itself to first-class cable, telephone and telegraph stocks. Quarterly dividends of 1% have been regularly paid on the preferred shares, beginning April, 1904, and semi-annual dividends of 1% have been regularly paid on the common shares, beginning Jan., 1905. Arrangements have been made so that Canadian shareholders may cash their dividend checks in Canada, and European shareholders may cash their dividend checks in London. The income of the subordinate companies of the Mackay Companies is largely in excess of the amount required to pay these dividends, but its policy is to obtain from its subordinate companies only enough money to meet the dividends on the Mackay Companies shares. All surplus earnings are left in the treasuries of the subordinate companies for extensions, and the development of the business and the increase of reserves. During the year 1905 the earnings of the Commercial Cable Co. have shown substantial gains in gross receipts and net profits on both the ocean and land systems. After paying the dividends on its stock, a large amount remaining was carried to reserve, in accordance with its long established policy. That company has, in addition, completed and put into operation a fifth submarine cable to Europe, and also established cable connections with Newfoundland, the business of which has been heretofore exclusively handled by other companies. The Commercial Pacific Cable Co. has completed arrangements for laying submarine cables to Japan from Guam, and to China from Manila, to be put into operation on or before April 1, 1906. The land line system (the Postal Telegraph) is being constantly extended, and shows increased gross receipts and net profits over the previous year. The shareholders of the Mackay Companies in meeting assembled, at Boston, Mass., on June 15, 1905, by a vote of over four-fifths in interest of each class of shareholders, amended the agreement and declaration of trust, under which the Mackay Companies was organized, so that the shareholders shall annually elect the trustees and the trustees shall annually make reports to shareholders.

General Telephone Matters.

Propositions are under consideration at Appin, Crinan and Dryden, Ont., for the formation of companies to construct local telephone lines.

Authority is being asked from the Ontario Legislature by the Port Arthur Town Council to extend the telephone system in the town at a cost of $18,000.

The telephone line connecting North Vancouver with the other portions of the B.C. Telephone Co.'s system, is expected to be completed and in operation by May 1.

The telephone line between North Bay and New Liskeard, Ont., has been completed to Temagami, and will be connected up with New Liskeard, it is expected, in May.

The Bell Telephone Co. has opened a public station at Coboconk, Ont. During the past year the company has opened a number of public pay stations in the Lindsay district.

The Haileybury and Cobalt Telephone Co. has been authorized to increase its capital from $5,000 to $40,000 by a supplemental charter, issued under the Ontario Companies' Act.

The Bell Telephone Co. proposes to install 30 new exchanges along the C.P.R main line west of Regina, Sask., and within the boundaries of the province, during the current year.

The Alberta Union of Municipalities passed a resolution Mar. 5, asking the Government to co-operate with the Government of Manitoba in obtaining power from the Dominion Government to expropriate the Bell Telephone system.

The citizens of Brantford, Ont., gave a dinner Mar. 9, in honor of A. G. Bell, the inventor of the telephone. Dr. Bell, replying to the toast of his health, gave details of the final testing of the telephone in Brantford in 1876, before the invention was given to the world.

The Quebec Executive of the Union of Canadian Municipalities has passed a resolution favoring government ownership of long distance lines and their operation either directly or by a commission; the municipal ownership of local telephone lines, and the passing of such legislation as will set at rest the authority of Quebec and the municipal authorities in regard to the expropriation of telephone lines.

The Alberta South-Eastern Telephone Co. has been formed at Medicine Hat, Alta., to construct telephone lines into the Cypress Hills country. The main line proposed will be about 50 miles in length, and several branch lines will be constructed. The provisional directors are J. Huston, S. T. Fawcett, W. Rutherford, G. Henry, W. Nicholls, and W. C. Harris, the latter of whom is acting as Secretary.

The Lansdown, Ont., Telephone Co. has been organized with the following officers and directors: President, W. J. Webster; Vice-President, C. Fredenburg; Secretary, W. McConnell; Treasurer, G. F. Deane; other directors: G. R. Webster, H. Horton, O. W. Landon, R. J. Mitchell, W. W. Shipman. There are now 38 subscribers; the construction work will be started at once, and it is hoped to have the line open by May 1.

The Burgessville, Ont., Telephone Co. showed a net profit of $79.64 for the first year of its operations. It was decided not to declare a dividend, and to make an arrangement for a long distance connection with the Bell Telephone Co. Following are the officers and directors for the current year: President, Dr. Service; Vice-President,

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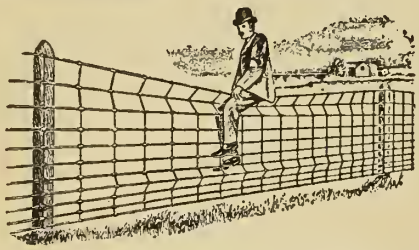

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IS hereby given that the Great Northern Railway of Canada will apply to the Parliament of Canada at its next session to extend the time in which it may construct the uncompleted portions of its line of railway between a point near St. Jerome, St. Sauveur, or Lachute, and a point on the Ottawa, Northern and Western Railway, in the County of Wright.

Z. A. LASH,
Solicitor for Applicant.

Toronto, 9th February, 1906.

J. G. Corless; Secretary-Treasurer, H. Sneath; Manager, M. Emigh; other directors: A. E. Wilson, W. T. Nutt, W. K. Newton.

Telegraphone System of Canada, is the title under which a company has been incorporated under the Dominion Companies' Act, with a capital of $50,000, and offices in Montreal. The objects of the company are to purchase the rights of the Telegraphone patents for Canada; to manufacture the instruments; to install and equip railroad trains and offices; and to lease or sell the instruments. The incorporators are:—F. C. Hirsch, T. Hanley, R. Bartholomew, Montreal; E. Adler, Lachine, Que.; G. P. Mathewman, Ottawa.

Bell Telephone Co. of Canada.

The 26th annual report of the directors submitted at the annual meeting held in Montreal, showed that 12,035 subscribers had been added during the year, the total number of sets of instruments now earning rental being 78,195. The company now owns and operates 526 exchanges and 959 agencies; 4,871 miles of wire have been added to the long distance system in 1905. The long distance lines now owned and operated by the company comprise 37,082 miles of wire on 8,645 miles of poles; $325,000 of 5% bonds were sold during the year, the net premium on which, $16,250, has been carried to the contingent account; 10,000 shares of new stock were offered to the shareholders at 25% premium, to be paid for in five quarterly instalments. Three of these instalments are included in this statement, bringing the paid-up capital to $8,604,840, and premium on stock to the amount of $182,742.50 has also been carried to the contingent account. From the balance of revenue account, amounting to $296,903.19, $45,393.97 have been carried to insurance reserve account; $56,191.22 to accident reserve account and $150,000 to the contingent account, leaving a balance of revenue account to be carried to 1906 of $45,318.00.

RECEIPTS.

Exchanges (less unearned rentals)....		$2,325,720.82
Long distance lines.....		901,367.35
Private lines.....		17,149.68
Miscellaneous.....		273,357.67
		$3,517,595.52

EXPENSES.

Operating.....	$2,435,239.20	
Legal.....	27,952.93	
Insurance.....	27,753.08	
Bond interest.....	102,580.29	
Miscellaneous.....	21,751.32	
		$2,615,276.82
Net revenue for 1905.....		902,318.70
Less dividends (Inc. Jan. 15, 1906)...		650,215.96
		$ 252,102.74
Balance revenue from 1904.....		44,800.45
		$ 296,903.19
C'd to insurance reserve ..	$ 45,393.97	
C'd to accident reserve...	56,191.22	
C'd to contingent account	150,000.00	
		251,585.19
Carried forward to 1906.....		$ 45,318.00

BALANCE SHEET.

Stock account.....		$8,604,840.00
Bond account.....		2,325,000.00
Contingent fund, 1904.	$1,845,410.24	
Add premium on stock	182,747.50	
Add premium on bonds	16,250.00	
Add from revenue ac't.	150,000.00	
		2,194,407.74
Carried forward		2,194,407.74
Revenue account.....		45,318.00
Unearned rental reserve.....		464,087.86
Insurance reserve.....		250,000.00
Accident reserve.....		150,000.00
Bond interest reserve.....		29,062.50
Sundry creditors.....		333,586.87
		$14,396,302.97

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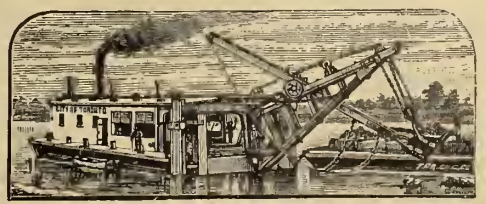

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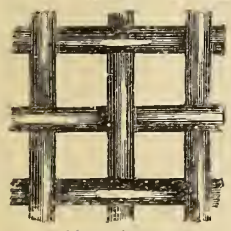

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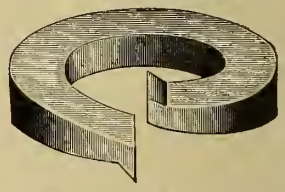

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F. H. HOPKINS & CO., Agents, MONTREAL

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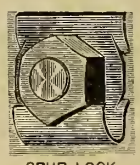

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EVERY PERSON SHOULD HAVE AN IDENTIFICATION OUTFIT AND SICKNESS POLICY

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TEMPLE BUILDING, MONTREAL

Plant and patent account, Dec. 31, 1904	$9,273,755.90	
Plant and Patent account, added in 1905	1,910,379.82	
Plant and patent account, Dec. 31, 1905	$11,184,135.72	
Stores on hand	560,810.37	
Real estate	1,370,103.39	
Stock in other companies	947,556.50	
Due from agencies	121,386.34	
Debtors	104,743.52	
Cash	107,567.13	
		$14,396,302.97

Following are the directors for the current year:—C. F. Sise, Hon. R. Mackay, F. P. Fish, R. Archer, W. R. Driver, H. Paton, C. Cassils, T. Sherwin, H. D. Warren.

Telephone Legislation in Manitoba.

The committee appointed by the Manitoba Legislature to investigate the telephone problem in the Province, presented a lengthy report in which it was recommended that the telephone was such a public utility that it should be owned and operated by the Government. It was further recommended that the Government should construct long distance lines throughout the Province, operating them either directly or through a commission; that the local lines be owned and operated by the municipalities, and that the Government should enter into such a contract or arrange such a tariff of rates as would give to the municipalities of the Province satisfactory intercommunication at a low cost. The committee also suggested that the Government take powers to provide a local service in Winnipeg, Brandon and Portage la Prairie in the event of the municipalities there not desiring to undertake the work; to expropriate any telephone system in the Province, and recommended that the Government memorialize the Dominion Parliament not to increase the capital of the Bell Telephone Co. Following the report of the committee the Government introduced two bills, one dealing with a municipal telephone system, and the other respecting Government telephone and telegraph systems. The first provides for the expropriation by any municipality of any telephone system within the municipality at a price to be fixed by agreement, or by the proceedings prescribed for the purchase of real estate under the Municipal Act, authorizing the Government to guarantee any bonds that may be issued for the purpose of making any such purchase, and making the provisions of the Municipal Electric Light, Gas and Telephone Act apply to such purchases. The second provides that the Government shall have power to purchase, lease, construct, extend, maintain or operate a telephone system or systems; that it shall have power to purchase by expropriation any existing lines, by agreement or under the Manitoba Expropriation Act, and to issue debentures in payment for the same. It also gives power to operate telephone lines in Winnipeg, Brandon and Portage la Prairie, or any other place at the request of the municipality. The carrying out of the terms of the act it is proposed to place in the hands of three commissioners, one of whom shall be an engineer, to be appointed by the Government during its pleasure, and at salaries to be agreed upon. The act contains a clause to the effect that it shall have force and effect only in so far as and in relation to matters in respect of which the Legislature has authority. The bills passed through committee Mar. 9.

The Purchasing Agents' Guide

To the Manufacturers of & Dealers in Steam & Electric Railway, Marine, Grain Elevator, Express, Telegraph, Telephone and Contractors' Supplies, &c.

Accident Insurance
Accident & Guarantee Co. of Canada, ...Montreal
Canadian Ry. Accident Ins. Co. .....Ottawa, Ont.

Aerated Waters
E. L. Drewry .....Winnipeg.

Air Brakes and Fittings
Canada Foundry Co.....Toronto.
Canadian Westinghouse Co.....Hamilton, Ont.

Air Compressors
N. J. Holden Co..... .Montreal.

Ales
E. L. Drewry.....Winnipeg.

Angle Bars
Montreal Rolling Mills Co.....Montreal.

Axes
James Smart Mfg. Co.....Brockville, Ont.

Axe Steel
Montreal Steel Works.....Montreal.

Axles
James Hutton & Co.....Montreal.
B. M. Jones & Co., Inc. .....Boston and New York.
Jas. W. Pyke & Co.....Montreal.
Rhodes, Curry & Co.....Amherst, N.S.

Beams
Hamilton Bridge Works.....Hamilton, Ont.

Bearings, Side
Chicago Railway Equipment Co.....Chicago, Ill.

Belting, Rubber
The Canadian Rubber Co. of Montreal.

Blankets and Bedding
The Hudson's Bay Co.....

Block Signals
General Railway Signal Co.....Buffalo, N.Y.

Boiler Compound
N. J. Holden Co.....Montreal.

Boiler Covering
Mica Boiler Covering Co.....Montreal.

Boilers
Babcock & Wilcox (Ltd).....Montreal.
Canada Foundry Co.....Toronto.
Hall Engineering Works.....Montreal.
Polson Iron Works.....Toronto.
Robb Engineering Co.....Amherst, N.S.

Boilers, Internally Fired
Robb Engineering Co.....Amherst, N.S.

Boilers, Portable
Canada Foundry Co.....Toronto.
H. W. Petrie.....Toronto.
Robb Engineering Co.....Amherst, N.S.

Boilers, Stationary and Marine
Babcock & Wilcox (Ltd.).....Montreal.
Canada Foundry Co.....Toronto.
H. W. Petrie.....Toronto
Robb Engineering Co.....Amherst, N.S.

Boilers, Steam
Babcock & Wilcox (Ltd.).....Montreal.
H. W. Petrie.....Toronto.

Boilers, Water Tube
Babcock & Wilcox (Ltd.).....Montreal.

Boiler Tubes
Jas. W. Pyke & Co.....Montreal.

Bolsters
Simplex Railway Appliance Co.....Montreal.

Bolts, Bridge
Canada Foundry Co.....Toronto.
Montreal Rolling Mills Co.....Montreal.
Toronto Bolt and Forging Co.....Toronto.

Bolts, Carriage and Machine
Toronto Bolt and Forging Co .....Toronto.

Bolts, Track
Canada Foundry Co.....Toronto.
Montreal Rolling Mills Co.....Montreal.
Toronto Bolt and Forging Co.....Toronto.

Box Car Loaders
W. H. C. Mussen & Co.....Montreal.

Brake Beams
Chicago Railway Equipment Co.....Chicago, Ill
Simplex Railway Appliance Co.....Montreal.

Brake Shoes
American Brake Shoe& F'dry Co.,....Mahwah N.J
Canadian Iron and Foundry Co.....Montreal.
N. J. Holden Co.....Montreal.

Brass and Copper Cloth
The B. Greening Co.....Hamilton, Ont.

Bridge Bolts
Hamilton Bridge Works..... Hamilton, Ont.

Bridge Numbers
Acton Burrows Limited.....Toronto.

Bridge Rods
Hamilton Bridge Works.....Hamilton, Ont.

Bridges
Canada Foundry Co.....Toronto.
Canadian Bridge Co.....Walkerville, Ont
Dominion Bridge Co.....Montreal.
Hamilton Bridge Works.....Hamilton, Ont.

Bumping Posts
Mechanical Mfg. Co..... Chicago, Ill.

Buoy Lighting
Safety Car Heating and Lighting Co....NewYork.
Willson Gas Buoy Co.....Ottawa, Ont.

Cables, Electric and Feeder
E. F. Phillips Electrical Works, Ltd.,....Montreal.
The Wire and Cable Co.....Montreal.

Caboose Heaters
Geo. R. Prowse.....Montreal.

Calendars
Rolph & Clark (Ltd.).....Toronto.

Car Castings
American Brake Shoe & F'dry Co. ....Mahwah, N.J.
Canadian Iron and Foundry Co.....Montreal.

Car Closets
Duner Co.....Chicago, Ill.

Car Heating
Wm. C. Baker .....New York.
Safety Car Heating and Lighting Co.....NewYork.

Car Jacks
F. H. Hopkins & Co.....Montreal.
W. H. C. Mussen & Co.....Montreal.

Car Kitchen Equipments
Geo. R. Prowse.....Montreal.

Car Lighting
Safety Car Heating and Lighting Co.....NewYork.

Car Movers
N. J. Holden Co.....Montreal.
F. H. Hopkins & Co.....Montreal.
W. H. C. Mussen & Co.....Montreal.

Car Replacers
Alexander Car Replacer Mfg. Co.....Scranton, Pa.
N. J. Holden Co.....Montreal.
F. H. Hopkins & Co.....Montreal.

Cars
American Palace Car Co. ....New York & Toronto.
Canada Car Co.....Montreal.
Crossen Car Mfg. Co.....Cobourg, Ont.
Rhodes, Curry & Co.....Amherst, N.S.

Car Ranges
Geo. R. Prowse.....Montreal.

Car Upholstery
N. J. Holden Co.....Montreal.

Castings
Crossen Car Mfg. Co..... .....Cobourg, Ont.

Castings, Brass
Canadian Bronze Co.....Montreal.
Canadian Iron and Foundry Co.....Montreal.
Kerr Engine Co.....Walkerville, Ont.
St. Thomas Brass Co.....St. Thomas, Ont.

Castings, Iron
Canadian Iron and Foundry Co.....Montreal.
Kerr Engine Co.....Walkerville, Ont.

Castings, Iron and Steel
American Brake Shoe & F'dry Co.....Mahwah, N.J.

Castings, Steel
Canada Car Co.....Montreal.
Canadian Iron and Foundry Co.....Montreal.
W. Kennedy & Sons, Ltd.....Owen Sound, Ont.
Montreal Steel Works..... .....Montreal.
Rhodes, Curry & Co.....Amherst, N.S.

Cast-Steel Hammers
American Brake Shoe & F'dry Co.....Mahwah, N.J.

Cast-Steel Track Tools
American Brake Shoe & F'dry Co.....Mahwah, N.J.

Cast-Steel Wrenches
American Brake Shoe & F'dry Co.....Mahwah, N.J.

Cement Machinery
Jas. W. Pyke & Co.....Montreal.

Chains
B. J. Coghlin & Co.....Montreal.

Coal Haulage Ropes
The B. Greening Co.....Hamilton, Ont.

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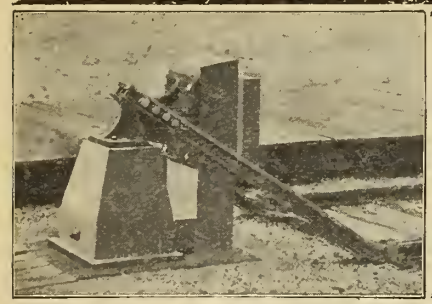

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Goold, Shapley & Muir Co.....Brantford, Ont.
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F. H. Hopkins & Co.....Montreal.
W. H. C. Mussen & Co.....Montreal.
Toronto Pressed Steel Co.....Toronto.

Conduit Contractors
F. T. Ley & Co.....Springfield, Mass.

Contractors
Hamilton Bridge Works.....Hamilton, Ont.
F. T. Ley & Co.....Springfield, Mass.
A. B. Ormsby (Limited).....Toronto.

Contractors' Plant
M. Beatty & Sons.....Welland, Ont.
F. H. Hopkins & Co.....Montreal.
The W. H. Kelson Co.....Montreal.
T. A. Morrison & Co.....Montreal.
W. H. C. Mussen & Co.....Montreal.
Toronto Pressed Steel Co.....Toronto.
Vulcan Iron Works Co.....Toledo, Ohio.

Contractors' Supplies
J. A. Dawson & Co.....Montreal.
F. H. Hopkins & Co.....Montreal.
Toronto Pressed Steel Co.....Toronto.

Conveyors, Coal and Ash
Babcock & Wilcox (Ltd.).....Montreal.
Borden & Selleck Co.....Chicago, Ill.

Conveying Machinery
Borden & Selleck Co.....Chicago, Ill.

Cooking Apparatus
Geo. R. Prowse.....Montreal.

Copperware
Geo. R. Prowse.....Montreal.

Copying Presses
James Smart Mfg. Co.....Brockville, Ont.

Cordage
McKenzie & Co.....Montreal.

Cotton Duck
McKenzie & Co.....Montreal.

Corrugated Furnaces
Continental Iron Works.....Brooklyn, N.Y.

Cross Arms, Top Pins and Side Blocks
Canadian General Electric Co.....Toronto.
The Firstbrook Box Co.....Toronto.

Cross Arm Braces
Canadian General Electric Co.....Toronto.
Montreal Rolling Mills Co.....Montreal.
Toronto Bolt and Forging Co.....Toronto.

Crossing Gates
General Railway Signal Co.....Buffalo, N.Y
The N. L. Piper Railway Supply Co.....Toronto

Crowbars
B. J. Coghlin & Co.....Montreal.
Toronto Bolt and Forging Co.....Toronto.

Culvert Pipe (Cast Iron)
Gartshore-Thompson Pipe & F'dry Co.....Hamilton.

Cuts
Acton Burrows Limited.....Toronto.

Derrick Ropes
Dominion Wire Rope Co.....Montreal.
The B. Greening Co.....Hamilton, Ont.

Derricks
M. Beatty & Sons.....Welland, Ont.
E. F. Dartnell.....Montreal.
W. H. C. Mussen & Co.....Montreal.

Diaphragms
N. J. Holden Co.....Montreal.

Diving Outfits
John Date.....Montreal.
W. H. C. Mussen & Co.....Montreal.

Door Signs
Acton Burrows Limited.....Toronto.

Drawing Materials
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James Foster.....Toronto.

Dredges
M. Beatty & Sons.....Welland Ont.
Vulcan Iron Works Co.....Toledo, Ohio.

Drilling Machines
The John Bertram & Sons Co.....Dundas, Ont.

Drills
W. Abbott.....Montreal.

Dry Goods
The Hudson's Bay Co.....

Dump Cars (Contractors')
F. H. Hopkins & Co.....Montreal.
Toronto Pressed Steel Co.....Toronto.

Dynamo and Electric Castings
American Brake Shoe & F'dry Co.....Mahwah, N J.

Economizers
Babcock & Wilcox (Ltd.).....Montreal.

Electric Car Fenders
The G. B. Meadows Wire, etc., Co.....Toronto.

Electric Car Route Signs
Acton Burrows Limited.....Toronto.

Electric Car Wire Guards
The G. B. Meadows Wire, etc., Co.....Toronto.

Electric Cranes
Canada Foundry Co.....Toronto.
E. F. Dartnell.....Montreal.
Dominion Bridge Co.....Montreal.
W. H. C. Mussen & Co.....Montreal.

Electric Ry. Brake Shoes
American Brake Shoe & F'dry Co.....Mahwah, N.J

Electric Railway Builders
F. T. Ley & Co.....Springfield, Mass.

Electric Ry. Supplies
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Electric Supplies
J. A. Dawson & Co.....Montreal.

Enameled Iron Signs
Acton Burrows Limited.....Toronto.

Engineers, Consulting
W. H. Breithaupt.....Berlin, Ont.

Engineers' Supplies
Canadian Fairbanks Co.....Montreal.
The Canadian Rubber Co. of Montreal.

Engines, Automatic
Robb Engineering Co.....Amherst, N.S

Engines, Corliss
Robb Engineering Co.....Amherst, N.S.

Engines, Gasoline
Canadian Fairbanks Co.....Montreal.
Goold, Shapley & Muir Co.....Brantford, Ont.
Ontario Wind Engine and Pump Co.....Toronto.

Engines, Hoisting
M. Beatty & Sons.....Welland, Ont.

Engines, Stationary and Marine
Canada Foundry Co.....Toronto.
H. W. Petrie.....Toronto.
Polson Iron Works.....Toronto.
Robb Engineering Co.....Amherst, N.S.

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Vulcan Iron Works.....Toledo, Ohio.

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Canadian Fairbanks Co.....Montreal.
H. W. Petrie.....Toronto.
Robb Engineering Co.....Amherst, N.S.

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Canada Foundry Co.....Toronto.
McGregor, Banwell Fence Co.....Walkerville, Ont.
New Brunswick Wire Fence Co.....Moncton, N.B.
Owen Sound Wire Fence Co.....Owen Sound, Ont.
Page Wire Fence Co.....Walkerville, Ont.

Fencing and Gates
New Brunswick Wire Fence Co.....Moncton, N.B.

Fence Staples
New Brunswick Wire Fence Co.....Moncton, N.B.

Fire Brick
W. H. C. Mussen & Co.....Montreal.

Fire Escapes
The G. B. Meadows Wire, etc., Co.....Toronto.

Fireproof Building Material
A. B. Ormsby Limited.....Toronto.

Flags
The Hudson's Bay Co.....

Flour
The Hudson's Bay Co.....

Forgings
Canada Car Co.....Montreal.
Crossen Car Mfg. Co.....Cobourg, Ont.
General Railway Signal Co.....Buffalo, N.Y.
Standard Steel Works.....Philadelphia, Pa.

Gas Buoys
Willson Gas Buoy Co.....Ottawa.

Gas Pipe (Cast Iron)
Gartshore-Thompson Pipe & F'dry Co., Hamilton.

Gates
Canada Foundry Co.....Toronto.
McGregor, Banwell Fence Co.....Walkerville, Ont.
New Brunswick Wire Fence Co.....Moncton, N.B.
Owen Sound Wire Fence Co.....Owen Sound, Ont.
Page Wire Fence Co.....Walkerville, Ont.

Gears (Heavy)
W. Kennedy & Sons (Ltd.).....Owen Sound, Ont.

Grain Elevators
John S. Metcalfe Co.....Chicago, Ill.

Groceries
The Hudson's Bay Company.....

Hammers
James Smart Mfg. Co.....Brockville, Ont.

Handcars
Crossen Car Mfg. Co.....Cobourg, Ont.
F. H. Hopkins & Co.....Montreal.
W. H. C. Mussen & Co.....Montreal.
Toronto Pressed Steel Co.....Toronto.

Hardware
The Hudson's Bay Company.....

Headlights
N. L. Piper Railway Supply Co.....Toronto.

Headlinings
Crossen Car Mfg. Co.....Cobourg, Ont.

Hoppers, Car, Wet or Dry
Duner Co.....Chicago, Ill.

Hose, Air Brake and Steam
The Canadian Rubber Co. of Montreal.

Hose, Fire
The Canadian Rubber Co. of Montreal.

Hose, Suction
The Canadian Rubber Co. of Montreal.

Hydrants
Kerr Engine Co.....Walkerville, Ont.

Illustrations
Acton Burrows Limited.....Toronto.

Inspection Cars
Canada Cycle and Motor Co.....Toronto Junc., Ont.

Inspections
R. W. Hunt & Co.....Montreal.
H. Jarvis & Co.....Chicago, Ill.

Instruments, Surveying and Engineering
Eugene Dietzgen Co.....New York.
James Foster.....Toronto.

Interlocking and Signalling
General Railway Signal Co.....Buffalo, N.Y.

Interlocking Signals
Montreal Steel Works.....Montreal.

Iron
A. C. Leslie & Co.....Montreal.

Iron Fencing
The G. B. Meadows Wire, etc., Co.....Toronto.

Iron, Pig
John McDougall & Co.....Montreal.

Iron Signs
Acton Burrows Limited.....Toronto.

Jacks
James Smart Mfg. Co.....Brockville, Ont.

Japans
McCaskill, Dougall & Co.....Montreal.

Journal Bearings
Canada Foundry Co.....Toronto.
Canadian Bronze Co.....Montreal.
Crossen Car Mfg. Co.....Cobourg, Ont.
Kerr Engine Co.....Walkerville, Ont.
Jas. W. Pyke & Co.....Montreal.
St. Thomas Brass Co.....St. Thomas Ont.

Journal Boxes
N. J. Holden Co.....Montreal.

Lager Beer, &c.
E. L. Drewry.....Winnipeg.

Lamps, Incandescent
Canadian Westinghouse Co.....Hamilton, Ont.

Lamps and Lanterns
The Hudson's Bay Company.....
The Hiram L. Piper Co.....Montreal.
N. L. Piper Railway Supply Co.....Toronto.

Lathes
The John Bertram Sons Co.....Dundas, Ont.
H. W. Petrie.....Toronto.

Launches
Polson Iron Works.....Toronto.

Lights, Contractors' and Wrecking
F. H. Hopkins & Co.....Montreal.
W. H. C. Mussen & Co.....Montreal.

Lithographing
Rolph & Clark (Ltd.).....Toronto.

Locomotive Driver Brake Shoe
American Brake Shoe & F'dry Co.....Mahwah, N.J.
Canadian Iron and Foundry Co.....Montreal.

Locomotive Lagging and Covering
Canadian Fairbanks Co.....Montreal.

Locomotives (Compressed Air)
Canadian Locomotive Co.....Kingston, Ont.
Locomotive and Machine Co. of Montreal.

Locomotives (Electric)
Canada Foundry Co.....Toronto.
Locomotive and Machine Co. of Montreal.

Locomotives (Logging)
Canadian Locomotive Co.....Kingston, Ont
Lima Locomotive and Machine Co.....Lima, Ohio.

Locomotives (Rack)
Canadian Locomotive Co.....Kingston, Ont.
Locomotive and Machine Co. of Montreal.

Locomotives (Steam)
Canada Foundry Co.....Toronto.
Canadian Locomotive Co.....Kingston, Ont.
The W. H. Kelson Co.....Montreal.
Lima Locomotive and Machine Co.....Lima, Ohio.
Locomotive and Machine Co. of Montreal.

Locomotive Stack Netting
The G. B. Meadows Wire, etc., Co.....Toronto.

Machine Tools
W. Abbott.....Montreal.
Canadian Fairbanks Co.....Montreal.
H. W. Petrie.....Toronto.

Machine Screws, Set Cap and Planer
John Morrow Machine Screw Co.....Ingersoll.

Machinery, Marine
Sheriffs Mfg. Co.....Milwaukee, Wis

Machinery Repairs, Marine
Sheriffs Mfg. Co.....Milwaukee, Wis.

Manganese Steel Castings
Montreal Steel Works.....Montreal.

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American Brake Shoe & F'dry Co...Mahwah, N.J.
Canadian Iron and Foundry Co.....Montreal.

Maps
Rolph & Clark (Ltd.).....Toronto.

Mats and Matting
The Canadian Rubber Co. of Montreal.

Metals
A. C. Leslie & Co.....Montreal.

Metal Studding
A. B. Ormsby Limited.....Toronto.

Metal Windows
A. B. Ormsby Limited.....Toronto.

Milepost Numbers
Acton Burrows Limited.....Toronto.

Milling Cutters
W. Abbott.....Montreal.

Milling Machines
The John Bertram Sons Co.....Dundas, Ont.
H. W. Petrie.....Toronto.

Mills, Boring and Turning
The John Bertram Sons Co.....Dundas, Ont.
H. W. Petrie.....Toronto.

Mill Tools and Supplies
J. A. Dawson & Co.....Montreal

Motor Cars
Canada Cycle & Motor Co...Toronto Junc., Ont.

Nickel
The Orford Copper Co.....New York.

Nickel for Nickel Steel
The Orford Copper Co.....New York.

Numbers
Acton Burrows Limited.....Toronto.

Nut Locks
Jones Positive Nut Lock Co.....Chicago, Ill.
Positive Lock Washer Co.....Newark, N.J.

Nuts, Cold Pressed
John Morrow Machine Screw Co.....Ingersoll.

Nuts, Square and Hexagon
Canada Foundry Co.....Toronto.
Montreal Rolling Mills Co.....Montreal.
Toronto Bolt and Forging Co.....Toronto.

Oakum
The Hudson's Bay Company.....
McKenzie & Co.....Montreal.

Office Desks
Canadian Office & SchoolFurnitureCo.,Preston,Ont.

Office Fittings
Canadian Office & SchoolFurnitureCo.,Preston,Ont.

Office Railings
The G. B. Meadows Wire, etc., Co.....Toronto.

Office Signs
Acton Burrows Limited.....Toronto.

Oils
Canadian Oil Co.....Toronto.
Galena Signal Oil Co., Franklin, Pa., and Toronto.

Packing
The N. L. Piper Railway Supply Co.....Toronto.

Packing, High Pressure Sheet
The Canadian Rubber Co. of Montreal.

Packing, Piston
The Canadian Rubber Co. of Montreal

Paints
Canadian Oil Co.....Toronto.

Paints, Dampresisting
E. F. Dartnell.....Montreal.

Passenger Cars
American Palace Car Co..New York and Toronto.

Pinch Bars
The N. L. Piper Railway Supply Co.....Toronto.

Pipe and Pipe Coverings
W. C. Baker.....New York.

Pipe Covering
Canadian Fairbanks Co.....Montreal.
Mica Boiler Covering Co.....Montreal.

Piston Rods
B. M. Jones & Co., Inc....Boston and New York.

Planers
The John Bertram Sons Co.....Dundas, Ont.
H. W. Petrie.....Toronto.

Ploughs, Contractors'
W. H. C. Mussen & Co.....Montreal
Toronto Pressed Steel Co.....Toronto.

Pneumatic Tools
N. J. Holden Co.....Montreal.

Porter
E. L. Drewry.....Winnipeg.

Portable Boilers
Babcock & Wilcox (Ltd.).....Montreal.
Canada Foundry Co.....Toronto.
Robb Engineering Co.....Amherst, N.S.

Printing
The Hunter, Rose Co.....Toronto.
The Mail Job Printing Company.....Toronto.

Propeller Wheels
W Kennedy & Sons (Ltd.).....Owen Sound, Ont.
Sheriffs Manufacturing Co.....Milwaukee, Wis.

Pumps
Canadian Fairbanks Co.....Montreal.
Canada Foundry Co.....Toronto.
Goold, Shapley & Muir Co.....Brantford, Ont.
James Smart Mfg. Co.....Brockville, Ont.

Pumps (Centrifugal)
M. Beatty & Sons.....Welland. Ont

Punching and Shearing Machines
The John Bertram Sons Co.....Dundas. Ont.

Rail Benders, Roller
F. H. Hopkins & Co.....Montreal.
Montreal Steel Works.....Montreal.

Rails (new)
Drummond, McCall & Co.....Montreal.
F. H. Hopkins & Co.....Montreal.
J. J. Gartshore.....Toronto.

Rails (for relaying)
F. H. Hopkins & Co.....Montreal.
J. J. Gartshore.....Toronto.
T. A. Morrison & Co.....Montreal.
W. H. C. Mussen & Co.....Montreal.
Jas. W. Pyke & Co.....Montreal.

Railway Bridges
Hamilton Bridge Works.....Hamilton, Ont.

Railway Interlocking
General Railway Signal Co.....Buffalo, N.Y.

Rail Joints
N. J. Holden Co.....Montreal.

Railway Pile Drivers
F. H. Hopkins & Co.....Montreal.
W. H. C. Mussen & Co.....Montreal

Railway Signalling
General Railway Signal Co.....Buffalo, N.Y.

Railway Spikes
F. H. Hopkins & Co.....Montreal.

Railway Supplies
J. A. Dawson & Co.....Montreal.
Canadian Fairbanks Co.....Montreal.
The W. H. Kelson Co.....Montreal.
The Hiram L. Piper Co.....Montreal.
The N. L. Piper Railway Supply Co.....Toronto.

Reamers
W. Abbott.....Montreal

Refrigerators
Geo. R. Prowse.....Montreal.

Rivets, Boiler, Bridge and Structural
Canada Foundry Co.....Toronto
Montreal Rolling Mills Co.....Montreal.
Toronto Bolt and Forging Co.....Toronto.

Rolled Wheels
Standard Steel Works.....Philadelphia, Pa

Rolls, Plate Bending
The John Bertram Sons Co.....Dundas, Ont.

Roofers
A. B. Ormsby Limited.....Toronto.

Roof Trusses
Canada Foundry Co.....Toronto.
Canadian Bridge Co.....Walkerville, Ont
Dominion Bridge Co.....Montreal.
Hamilton Bridge Works.....Hamilton, Ont.

Rope
F. H. Hopkins & Co.....Montreal.
The Hudson's Bay Co.....
J. Leckie Limited.....Toronto.

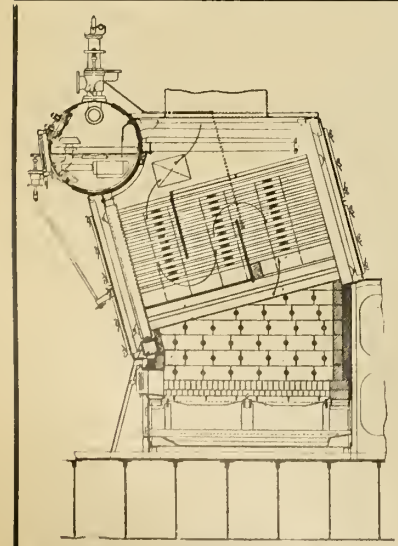
Rotary Snow Ploughs
Crossen Car Mfg. Co.....Cobourg Ont

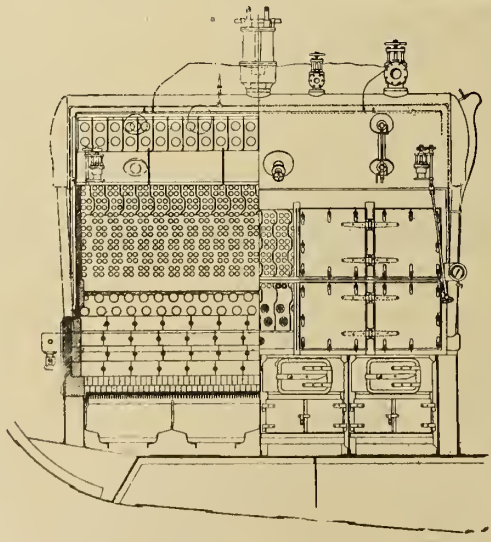
Rubber Tiling, Interlocking
The Canadian Rubber Co. of Montreal.

Saw Steel
Montreal Steel Works.....Montreal.

Scrapers (Wheel and Drag)
F. H. Hopkins & Co.....Montreal.
W. H. C. Mussen & Co.....Montreal.
Toronto Pressed Steel Co.....Toronto.

Screws, Coach and Lag
Montreal Rolling Mills Co.....Montreal.
Toronto Bolt and Forging Co.....Toronto.





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Railway Commissioners' Freight Orders.

The following orders affecting freight matters have been issued by the Board of Railway Commissioners:

B.C. LUMBER SHIPMENTS.

Mar. 12. In the matter of the complaint of the Porto Rico Lumber Co , complaining that as the result of the cancellation of the joint freight tariff issued by the C.P.R. June 30, 1904, as effective July 5, 1904, numbered W. 273, and the substitution of their local rates to and beyond Nelson, British Columbia, by the Nelson and Fort Sheppard Ry. Co. and the C.P.R., respectively, they have been unjustly discriminated against in respect of shipments of lumber, laths and shingles from Ymir and Salmo, B.C., to points on the Western and Central Divisions of the C.P.R., via Nelson, and applying for an order directing the said railway companies to restore the said joint freight tariff, numbered W. 273; upon reading the said complaint, the written allegations in support thereof, and the answer of the C.P.R. filed; and upon the report of its Chief Traffic Officer—the Board orders that the said railway companies are hereby directed to restore the joint freight tariff W. no. 273, which went into force July 5, 1904, and was subsequently cancelled, and to charge only the tolls specified in said tariff for the routes and traffic therein referred to, and that, in the division of the joint rates between the companies, the Nelson & Fort Sheppard Ry. be allowed to charge 4c. per 100 lbs. as its proportion, as formerly. 2. That the said joint tariff be published and filed by the Nelson & Fort Sheppard Ry., and that the same take effect, and the tolls therein specified be charged as aforesaid, and traffic be carried by the said companies in accordance therewith on Apr. 16.

METALLIC SHINGLES—CARLOAD LOTS.

Mar 24. In the matter of the application of the Canadian Manufacturers' Association for an order directing the railway companies "to comply strictly with the terms of the order of the Board dated July 5, 1905, and establish carload rates upon metallic shingles and siding on the basis in effect prior to March, 1901, namely, seventh class rates, and minimum weight of 24,000 lbs. per car." It appearing to the Board that the provisions of its order dated July 5, 1905, in respect of the minimum carload weight, have not been complied with by the railway companies, upon reading the allegations and representations filed in support of the application, and the reply on behalf of the railway companies thereto; and upon the further report of its Chief Traffic Officer—the Board orders that the minimum carload weight for metallic shingles and metallic siding, when loaded in cars not over 36 ft. 6 in. in length, inside measurement, when shipped between points east of and including Winnipeg, shall be 30,000 lbs. per car; and when shipped between points west of and including Winnipeg, or from points east of Winnipeg to points west thereof, shall be 24,000 lbs. per car. That this order shall go into effect forthwith.

FREDERIC NICHOLLS.

Mar. 24. In the matter of the application of the Canadian Manufacturers' Association in respect of Canadian Freight Classification 13—(1) For the restoration of rule 2 of Canadian Freight Classification 11, to apply on mixed carloads of freight between points west of and including Port Arthur, and from points east of Port Arthur to points west thereof, as it now applies between points east of Port Arthur, under special ruling circular 1 of August 1, 1904, to Canadian Freight Classification 12. (2) For a revision of rule 6 so as to reduce the minimum weight for articles which require platform cars for carriage, from 6,000 lbs. a car, as now, to 4,000 lbs. a car. (3) For a reduction in the additional charge made by the railway companies, under rule 7, in the case of articles classified to be carried at owner's risk, but consigned and carried at the carrier's risk. (4) For a reduction of the minimum charge for single shipments, commonly known as the "smalls rate," as defined in rule 30, from 35c. each to 25c. each. Upon hearing representatives on behalf of the Canadian Manufacturers' Association and counsel for the railway companies interested, the evidence adduced at the sittings held in Ottawa, Winnipeg, Regina, Vancouver, Nelson, Sarnia, Chatham, Windsor, Toronto and Montreal, and what was alleged: and upon the report of its Chief Traffic Officer, the Board orders that the Canadian Freight Classification 12 be amended as follows:

1. Farm truck scales, crated or boxed, to be added to the "scales" list, at 2nd class L.C.L., and 5th class C.L., and at the same ratings, to the "agricultural implements" list.

2. Picture frames, picture mouldings and picture backing to be added to the "mouldings" list, at 3rd class in carloads.

3. Furnaces, stoves, radiators, and all articles in the "stoves" list, to be added, at the present ratings, to the "hardware" list.

4. Paper Hangers, burlaps (for interior decoration), in bales or bundles, in mixed carloads, to be added to the "paper" list at 4th class.

5. Stationary engines, to be added to the "agricultural implements" list, with portable or traction engines.

6. Fire engines, steam or hand brake, C.L. minimum 24,000 lbs., to be added to the "machinery" list.

7. Door and window screen frames, with or without wire cloth, to be added to the "furniture" list, at 1st class L.C.L. and 5th class C.L.

8. The following articles, at the present ratings, to be added to the plumbers' supplies list, viz.: ventilating and heating apparatus, consisting of furnaces, boilers, radiators, registers, steam-gauges, steam traps, and valves; a carload rating for steam traps to be provided.

9. Harness dressing, to be added to the "polishing compounds" list, at 2nd class L.C.L., 4th class C.L.

10. Butter workers, creamers, and wooden pumps, to be added, at the present ratings, to the "hardware" list.

11. Saddlery hardware, at the present ratings, to be added to the "hardware" list.

12. Stationary steam engines, at the present ratings, to be added to the "electrical goods and dynamos" list.

Galena-Signal Oil Company,

Franklin, Pa., and Toronto, Ont.

Sole manufacturers of the celebrated Galena COACH, ENGINE and CAR OILS, and SIBLEY'S PERFECTION VALVE and SIGNAL OILS.

Guarantee cost per thousand miles, for from one to five years, when conditions warrant it.

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Services of Experts furnished free of charge to patrons interested in the economical use of oils.

STREET RAILWAY LUBRICATION A SPECIALTY.

Please write home office for further particulars.

CHARLES MILLER,
PRESIDENT.

13. Paraffine wax and candles, at the present ratings, to be added to the "oils" list.

That Rule 6 be amended to read as follows: "All articles, unless otherwise specified, will be taken at the actual gross weight and the class rate for each shipment; except that any article which cannot be loaded in a standard box car (36½ ft. inside length), and which is loaded on a platform car, will be charged at the classification rate (the same on a platform car as in a box car), but subject to a minimum weight and charge of 5,000 lbs. at the 1st class rate; the total charge not to exceed that for a carload of the same article in a box car. Note—Where the classification provides for any article a lower minimum weight than 5,000 lbs., such lower minimum weight will apply, instead of the minimum of 5,000 lbs. referred to above." The articles referred to in the note to this rule to be classified with the lower minimum weight than 5,000 lbs. are, for the present: boilers, smokestacks, iron or steel shafting, beams, columns and girders, feed-water heaters, foundry cupolas, each at 4,000 lbs. minimum weight.

That Rule 1, which gives the minimum carload weights for cars over 36½ ft. long, as amended by supplement 4, be amended as follows, namely: Where the minimum carload weight in the classification for cars not over 36 ft. in length:

MINIMUM WEIGHTS IN LBS. WILL BE AS UNDER

For Cars Over ft.	in.	For Cars Not Over ft.	in.	Is 10,000 lbs.	Is 12,000 lbs.	Is 14,000 lbs.	Is 16,000 lbs.	Is 18,000 lbs.	Is 20,000 lbs.	Is 24,000 lbs.	Is 30,000 lbs.
36	6	40	6	12,000	14,500	17,000	19,000	21,500	24,000	29,000	36,000
40	6	41	6	12,500	15,500	18,000	20,000	22,500	25,000	30,000	37,500
41	6	42	6	13,500	16,000	19,000	21,000	23,500	26,000	31,000	39,000
42	6	43	6	14,000	17,000	20,000	21,500	24,500	27,000	32,500	40,500
43	6	44	6	15,000	18,000	21,000	22,500	25,000	28,000	33,500	42,000
44	6	45	6	15,500	19,000	22,000	23,000	26,000	29,000	35,000	43,500
45	6	46	6	16,500	20,000	23,000	24,000	27,000	30,000	36,000	45,000
46	6	47	6	17,000	20,500	24,000	25,000	28,000	31,000	37,000	46,500
47	6	48	6	18,000	21,500	25,000	25,500	29,000	32,000	38,500	48,000
48	6	49	6	18,500	22,500	26,000	26,500	29,500	33,000	39,500	49,500
49	6	50	6	19,500	23,500	27,000	27,000	30,500	34,000	41,000	51,000

That the said Freight Classification be further amended by substituting, in lieu of the present ratings, the following, namely:

	L.C.L.	C.L.
Cream separators, knocked down and boxed	2	..
Bees' Wax	2	4
Honey, in pails with wooden covers	2	4
Comb wood, knocked down flat, or folded flat, in bundles, crates or boxes	3	5
Bees, in hives, all openings to be securely closed with wire cloth, C.L. min. 12,000 lbs.	3-1	2

That a separate group, or distinctive heading, be provided for "bee-keepers' supplies," which shall embrace the various articles properly belonging thereto, as at present classified, or as herein ordered.

That the proof of supplement 6 to Canadian Freight Classification 12, submitted to the Board by the Canadian Freight Association on Feb. 8, 1906, subject to such changes as may be necessary to make it conform with the terms of this order, is hereby approved. This order shall go into effect not later than April 17.

SWITCHING CHARGES AT NEW WESTMINSTER.

Mar. 7. In the matter of the application of the C.P.R. under the Railway Act, 1903, to vary an order of the Board, dated Sept. 19, 1905, varying an order dated Feb. 10, 1904, providing for the place and mode of junction of the Vancouver, Westminster & Yukon Ry. with the C.P.R. at Lytton Square, New Westminster, B.C. Upon hearing counsel for the applicant company and the Vancouver, Westminster, and Yukon Ry., the evidence adduced was what was alleged; and upon the report of the Chief Traffic Officer of the Board, the Board orders, That the order of Sept. 19, 1905, be varied and amended by adding the following clause:

1. That the C.P.R. Co. pay to the Vancouver, Westminster & Yukon Ry. Co. the special toll of $1 a carload, regardless of weight, for switching through freight destined to, or which has originated at, points other than New Westminster, to or from the C.P. Navigation Co.'s premises south of Front St. (between Mary St. and McKenzie St., including the cattle corral), from or to the interchange switch at Lytton Square, or any other interchange switch which may hereafter be constructed between Lytton Square and Begbie St.; no charge to be made for switching the empty car in the opposite direction.

2. That the rate mentioned in the above added clause be substituted for that fixed by the said former order, so far as the same is applicable.

INTERCHANGE OF FREIGHT AT WINNIPEG.

976. Oct. 17, 1905. In the matter of the application of the Winnipeg Builders' Exchange, under sections 23, 214, 253, 271, and 272 of the Railway Act, 1903, for an order directing the C.P.R. Co., the Canadian Northern Ry. Co., and the Manitoba Ry. Co. to interchange freight of all grades and classes at Winnipeg. Upon hearing counsel for applicants and the railway companies, the evidence adduced, and what was alleged—the Board orders that on and after Jan. 1, 1906, all freight in carloads shall, when carried over the C.P.R., or the Canadian Northern Ry. Co., to Winnipeg, or St. Boniface, or when delivered to either of the said companies at Winnipeg or St. Boniface for carriage, be transferred by the one company to the other in the original cars at some point of junction of their lines at or in the vicinity of St. Boniface or Winnipeg, when so consigned by the shippers.

May Birthdays.

Many happy returns of the day to

W. R. Baker, Assistant to President C.P.R., Montreal, born at York, Eng., May 25, 1852.

S. Barker, M.P., ex-General Manager Northern Ry., Hamilton, Ont., born at Kingston, Ont., May 25, 1839.

C. W. Burpee, Superintendent C.P.R., Brownville Jct., Me., born at Keswick, N.B., May 15, 1861.

G. S. Cantlie, Superintendent Car Service, C.P.R., Montreal, born there May 2, 1867.

M. Donaldson, General Superintendent Ottawa Division G.T.R., Ottawa, Ont., born near Edinburgh, Scotland, May 1, 1851.

G. C. Dunn, District Engineer Transcontinental Railway surveys, Fredericton, N.B., born at Quebec, May 13, 1862.

Hon. W. C. Edwards, Temiskaming Steamboat Co., Rockland, Ont., born at Clarence, Ont., May 7, 1844.

J. D. Evans, Engineer Central Ontario Ry., Trenton, Ont., born at Goderich, Ont., May 27, 1843.

T. M. Fallon, City Passenger and Ticket Agent, Rutland Rd., Montreal, born there May 26, 1875.

E. T. Galt, President Alberta Ry. and Irrigation Co., Lethbridge, Alta., born at Sherbrooke, Que., May 24, 1850.

J. R. Gilhula, Chief Dispatcher Pere Marquette Rd., St. Thomas, Ont., born at Chatham, Ont., May 27, 1865.

A. Hardy, General Freight and Passenger Agent, Quebec and Lake St. John Ry., Quebec, born there May 12, 1855.

C. M. Hays, 2nd Vice-President and General Manager G.T.R., and President G.T. Pacific Ry., Montreal, born at Rock Island, Ill, May 16, 1856.

R. B. Hepburn, President and General Manager Ontario and Quebec Navigation Co., Picton, Ont., born there May 27, 1876.

W. T. Huggan, Accountant and Auditor Prince Edward Island Ry., Charlottetown, P.E.I., born at Halifax, N.S., May 24, 1851.

J. Hunter, Chief Engineer Wellington, Colliery Co.'s Ry., Nanaimo, B.C., born at Aberdeen, Scotland, May 7, 1839.

W. T. Jennings, Consulting Engineer, Toronto, born there May 19, 1846.

W. S. Kinnear, Assistant General Manager Michigan Central Rd., and Chief Engineer Detroit River Tunnel, Detroit, Mich., born at Circleville, Ohio, May 25, 1864.

M. Neilson, C.E., Consulting Engineer Montreal Street Ry., born at Almonte, Ont., May 26, 1852.

A. L. Ogilvy, General Purchasing Agent, Transcontinental Railway Commission, Ottawa, Ont., born at Richwood, Oxford County, Ont., May 23, 1868.

G. A. Parker, Auditor Dominion Altantic Ry., Kentville, N.S., born at Walton, N.S., May 1, 1855.

N. J. Power, Auditor of Disbursements, G.T.R., Montreal, born at Rochester, N.Y., May 19, 1843.

Hayter Reed, Manager-in-Chief C.P.R. hotels, Montreal, born at L'Original, Ont., May 26, 1849.

H. B. Sherwood, Superintendent Bay of Quinte Ry., Napanee, Ont., born at Auburn, N.Y., May 25, 1847.

E. Tiffin, General Traffic Manager I.C.R., Moncton, N.B., born at Hamilton, Ont., May 5, 1849.

W. H. Underwood, Assistant General Passenger Agent Michigan Central Rd., Chicago, Ill., born at Rochester, N.Y., May 6, 1858.

Garret Vliet, Assistant Master Mechanic G.T.R., Portland Me., born at Milwaukee, Wis., May 5, 1854.

J. H. Walsh, General Manager Quebec Central Ry., Sherbrooke, Que., born at Quebec, May 12, 1860.

H. K. Wicksteed, Chief Engineer of Location Mackenzie, Mann & Co.'s Lines, Toronto, born at Quebec May 25, 1855.

James Yeo, ex-Roadmaster Intercolonial Ry., Riviere du Loup, Que., born at Bideford, Devonshire, Eng., May 1, 1830.

J. A. Yorick, Canadian Passenger Agent Chicago, Burlington and Quincy Rd. at Toronto, born at London, Ont., May 7, 1872.

The Railway Act of the Province of Quebec was amended at the last session of the Legislature by the inclusion therein of sub-sections 2, 3 and 4 of sec. 251, relating to by-laws; and sec. 252, sub-sections 1, 2, 3 and 4, relating to discrimination, from the Dominion Railway Act.

The Canadian Northern Ry. time table, which came into effect April 1, shows 2,488.5 miles in operation, against 2,406.7 miles in Dec., 1905, an increase of 81.8 miles. In district 2 there is an increase of 0.6 miles due to re-measurements. District 3 has been increased from 763.7 to 940.8 miles, the portion of the line from Gilbert Plains Jct., Man., to Kamsack, Sask., 94.8 miles, having been transferred from district 4; the extension from Melfort to Prince Albert, Sask., 62.0 miles, and 20.1 miles of the Thunderhill branch having been taken over by the operating department. District 4 includes the 548.3 miles from Kamsack, Sask., to Edmonton, Alta.

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District Offices: MONTREAL HALIFAX OTTAWA WINNIPEG VANCOUVER ROSSLAND

Railway Bonds Issued in 1905.

At the recent annual meeting of the Central Canada Loan and Savings Co., the Vice-President and Managing Director, E. R. Wood, who is also a director of the Grand Trunk Pacific Ry., referred at length to the various bond issues made in Canada during 1905, giving a very full list, from which are extracted the following particulars relating to issues by Canadian transportation and allied companies, and by similar companies controlled by Canadian interests:

CANADIAN NORTHERN RAILWAY CO.	
4% debenture stock, £1,840,000	$ 8,954,666
3% first mortgage bonds guaranteed by Dominion of Canada, £1,923,287	9,359,996
3½% first mortgage bonds James Bay Ry. guaranteed by Ontario Government	5,250,000
4% first mortgage bonds Great Northern Ry., guaranteed by Canadian Northern Ry	4,926,000
4% first mortgage bonds Chateauguay & Northern Ry. guaranteed by Canadian Northern Ry	1,110,000
4½% first mortgage Stock Equipment Co. bonds, guaranteed by Canadian Northern Ry	1,000,000
	$30,636,662
GRAND TRUNK PACIFIC RY. CO.	
4% Prairie Section, guaranteed by G.T. R., £1,646,000	$ 8,010,533
4% Lake Superior, guaranteed by G. T. R., £1,358,000	6,608,933
3% guaranteed by Dominion Government, £3,200,000	15,573,333
	$30,192,799

Memo. re Grand Trunk Pacific Ry. Co.:—Bonds and stocks issuable under agreement with Dominion Government:

First Mortgage Bonds	$68,133,000
Second Mortgage Bonds	20,146,000
Lake Superior Division	7,543,000
Land Grant Bonds (Ontario)	2,400,000
Equipment Bonds (say)	16,000,000
	$114,272,000
Capital Stock	$45,000,000
Canadian Pacific Ry., 4% debenture stock, £800,000	3,893,280
Mexican Light & Power Co., 5% bonds issued this year	2,000,000
5% bonds (Mexican Electric)	6,000,000
Havana Central Ry., 5% first mortgage bonds	5,000,000
New Brunswick Coal & Ry. Co., 4% guaranteed bonds	368,000
Rio de Janeiro Tramway, Light & Power Co., new underwriting	20,000,000
Bell Telephone Co., 5% first mortgage bonds	600,000
Winnipeg, Selkirk & Lake Winnipeg, Electric Ry., 5% first mortgage bonds	300,000
Niagara, St. Catharines & Toronto Ry., 5% first mortgage bonds	116,000
Canada Atlantic Ry., 4% consolidated bonds, guaranteed by G.T.R. Co., £3,292,200	16,022,040
Bonds issued in London, £1,025,000. Balance held for exchange for old bonds and in treasury.	
Winnipeg Electric Ry. Co., 5% first mortgage bonds	500,000

Intercolonial and G.T.R. Arbitration.

The arbitrators appointed to settle a number of matters in dispute between the Intercolonial Ry. and the G.T.R., arising out of the joint operation of the section of the G.T.R. between St. Rosalie, Que., and Montreal, have given their decision in regard to several of the questions submitted to them.

The arbitrators were Justice Davidson, A. C. Killam, K.C., Chief Ry. Commissioner, and G. F. Shepley, K.C.; and the evidence was heard some months ago. The decisions now given are in seven cases, and 17, of which 14 are claims by the I.C.R., have yet to be decided.

The following are the cases decided: A collision at St. Madelaine between two I.C.R. trains resulted in the death of two men whose dependents sued the G.T.R., and after the case had been carried to the Supreme Court, secured aggregate damages of about $18,000. The commission holds that as the collision was due to a fault of the train dispatcher, who was a joint employe, each company should bear its own responsibilities. The G.T.R. is therefore reimbursed to the extent of $9,000, but it will have to bear the cost of damage to its own tracks.

The Government claimed that the I.C.R. trains had not received just accommodation at Bonaventure station. The commission held that, in view of present lack of facilities there, a reasonable service had been given, but they granted an equally suitable position for the I.C.R. Ocean Limited as is given to the G.T.R. International Limited. The I.C.R. may have a separate ticket office if it wishes, and a separate blackboard to announce trains.

As a result of loss sustained through operation of a defective pontoon at Quebec city, the G.T.R. will have to pay the Government $1,085 for not having kept it in repair.

An agreement was made as to what percentage of cartage charge at Quebec each should pay, and the commission allows $3,500 more than the G.T.R. had offered to pay.

Owing to an accident at St. Basile, damages were recovered from the G.T.R. for horses killed by an I.C.R. train, but two commissioners hold that liability was primarily on the Government, as owning and operating the I.C.R., notwithstanding the Government's claim that the G.T.R. had not kept crossings in repair. Mr. Shepley dissented.

A carload of hay shipped by Jas. Scott & Company was put by mistake on an I.C.R. train, but the G.T.R. paid for the loss involved. The commissioners reimbursed the company on the ground that the mistake was made by joint employes.

An I.C.R. engine ran into a horse and damages were paid in 1898 by the G.T.R., who applied for reimbursement, but as more than five years had elapsed proscription became effective.

Changes in Per Diem Rules.

The Secretary of the American Railway Association has issued the following circular:

At the meeting of the Association at Chicago, Oct. 25, 1905, the Secretary was directed to submit to the members for a letter ballot certain proposed amendments to Per Diem Rules 1 and 3 and revised Penalty Notice (Form N), the new rules to take effect after approval by a majority of the membership of the Association, representing two-thirds of the cars owned or controlled by members of the Association, and three months after announcement by the Secretary of the requisite majority. The results of the voting on the questions submitted were as follows:

1. On an amendment to Per Diem Rule 1, increasing the rate for the use of freight cars from 20 to 25c. a day. This amendment was approved by the following vote: In favor, 221 members, representing 1,740,460 cars owned or controlled. Against, 68 members, representing 114,582 cars owned or controlled.

2. On an amendment to Per Diem Rule 3, changing the penalty rate from 80 to 75c. This amendment was approved by the following vote: In favor, 226 members, representing 1,717,064 cars owned or controlled. Against, 61 members, representing 132,761 cars owned or controlled.

3. On an amendment to Per Diem Rule 3, providing that if a car is held by a road, the aggregate mileage of which is 2,000 miles or more, the penalty rate shall commence 20 days after the date of such notice. This amendment was lost by the following vote: In favor, 147 members, representing 885,425 cars owned or controlled. Against, 135 members, representing 969,150 cars owned or controlled.

4. On the adoption of the proposed revised form of Penalty Notice (Form N). The revised form was approved by the following vote: In favor, 202 members, representing 1,416,109 cars owned or controlled. Against, 68 members, representing 366,835 cars owned or controlled.

The total membership of the Association is 304, and the cars owned or controlled by the members 1,874,100. The majority requisite for approval was 153 members and 1,249,400 cars.

In accordance with the resolution of the Association, announcement is hereby made, as of April 1, 1906, that the amendments to Per Diem Rules 1 and 3 and the revised form of Penalty Notice (Form N), respectively numbered above as 1, 2 and 4, have been approved by the requisite majority, and will accordingly take effect July 1, 1906. The amendment to Per Diem Rule 3, numbered above as 3, was not approved.

To Our Toronto Subscribers

Heretofore copies of our paper for subscribers in Toronto have been delivered by a newspaper delivery company. Many complaints have reached us about irregular and careless delivery, and as we have been unable to secure any improvement we have decided to send all papers in future by mail, which will, we believe, secure a practically perfect delivery, and give satisfaction to our subscribers. It is very seldom that we receive any complaint of irregular receipt of the paper from persons outside Toronto who get our paper by mail, and we hope that the change we are making in the Toronto delivery will remove any cause of complaint from city subscribers.

Periodicals mailed from the office of publication are carried by the Post Office Department at a bulk rate per pound, but this does not apply to the city in which the publication is issued, so that copies addressed to our subscribers in Toronto will have to be prepaid by postage stamps. This renders it necessary for us to advance our subscription price in Toronto from $1 to $1.25 a year, which we feel sure will be readily aquiesced in by our Toronto subscribers, who, under the new plan, will secure prompter delivery.

In this connection we may point to the fact that our subscription rate is a very low one, and has not been raised since the establishment of the paper. We started out with supplying 28 pages per issue at $1 a year. Now we are giving 68 pages at the same price. In addition to the cost of producing the paper having more than doubled on account of the increase in its size, the actual cost per page has also largely increased, owing to the advance in the price of labor, paper, printing, etc. We are now giving our subscribers 800 pages a year, which is certainly pretty good value for the small subscription price.

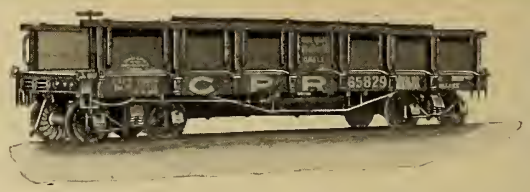
An Australian official sent a telegram from an outlying station: "Stationmaster has died. Shall I bury him?"

The reply was sent: "Yes, but please make sure he is really dead."

The report came back: "Have buried stationmaster. Made sure he was dead by hitting him twice on the head with a fish-plate."

The order-in-council relating to the payment by the Government for troops carried over the railways in Canada, has been amended by striking out the first and second paragraphs and setting forth that in future the railways will be paid at the rate of 2c. a mile for troops entitled to travel first class, and 1½c. a mile for those entitled to second class fares only, whether the railway company provides second-class accommodation or not.

"HART" CONVERTIBLE CARS



WILL ACCOMPLISH A SAVING

OF FROM

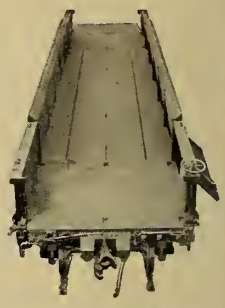
$200.00 TO $400.00

PER MILE

Hart Convertible Car
As a Centre Dump Hopper Car

THREE CARS IN ONE

Construction, Ballast and General Freight



Hart Convertible Car
As a Side Dump Level Floor Car

These Cars are built in various sizes and in relatively light weights. Thousands in daily service have proven their great economy and practicability. Built of 30 to 60 Tons Capacity and of either Wood or Steel.

"NATIONAL TYPE" BOTTOM DROP DOOR

COAL AND ORE CARS

Supplied in all Wood, Composite or all Steel

Cut of National Type Car with Doors Open

Entire bottom dropping—including over the trucks—does away with all shovelling—operated by worm and gear from end of cars by hand wheels as shown in cut.

APPLICABLE TO GONDOLA

BOX, STOCK AND COKE CARS

Cut of National Type Car with Doors Closed

SIMPLE MECHANISM—FREE FROM CHAINS

WRITE FOR ILLUSTRATED DESCRIPTIVE BOOKLET.

National Type Car with Bottom Open

DOMINION DUMP CAR CO, LTD.

IMPERIAL BANK CHAMBERS
MONTREAL

National Type Car with Doors Closed

Recent New Brunswick Legislation.

At the last session of the New Brunswick Legislature, the following acts affecting transportation interests were passed:

Incorporating the Buctouche Telephone Co.

Providing for the better protection of the ferries and public wharves and warehouses in the City of St. John.

Amending the act granting aid for the construction and equipment of a graving dock at the port of St. John.

Respecting the Imperial Dry Dock Co. of St. John.

Authorizing the city of Moncton to convey to the King for the use of the Intercolonial Ry., certain streets in that city.

Relating to the International Ry. Co. of New Brunswick.

Incorporating the Moncton and Gulf Ry.

Amending the act relating to the prevention of fires in connection with surveys and construction of the national Transcontinental Ry. and other railways passing through forest lands in N.B.

Amending the act in aid of the construction of railways.

Amending the act authorizing the city corporation of St. John to give leave that railways may be carried along public streets and highways in the city.

Respecting the St. John Railway.

Reviving and continuing the act of incorporation of the Shediac and Coast Ry.

Conferring certain privileges and franchises upon the Washington County Ry.

The G.T.R. and its Employes

The Judicial Committee of the Imperial Privy Council has rendered judgment in the appeal in the case of Miller against the G.T.R. The case involved the question of the rights of a G.T.R. employe or his representatives, who had joined the G.T.R. Employes' Benefit Association, could recover damages for injuries or death from the company in addition to the benefit accruing from the society. It is set forth in the Association rules that in consideration of the subscription of the G.T.R. to the society no member thereof or his representatives shall have any claim against the company for compensation on account of injury or death from accident. The plaintiff's husband, who was in the company's employ, and a member of the society, was killed in a collision between two trains on the G.T.R., Jan. 10, 1900. When the case was first heard $6,000 was awarded the widow, and $4,000 for the minor children, the question of law being reserved for the Court of Review. This question was taken from one court to the other with varying results, until the matter has been finally settled by the Privy Council. The court decided that the plaintiff was not barred from recovering damages by her husband having been a member of the society, and confirmed the judgment as to damages, and made certain orders as to costs.

F. W. Bowles has been appointed route agent Canadian Northern Ex. Co., with headquarters at Winnipeg, Man., succeeding J. A. Hill.

The Ross & Harris Company, Ltd., has been incorporated under the Dominion Companies' Act, with a capital of $200,000 and offices at Montreal, to carry on a general contracting business. The provisional directors are: J. Ross, W. H. Chandler, Toronto; J. A. McRea, Niagara Falls, Ont.; J. W. Harris, W. B. Powell, Montreal, several of whom are well-known railway contractors. The company has secured the contract to construct complete 40 miles of line from Parry Sound to Byng Inlet, Ont., on the C.P.R. Toronto-Sudbury line.

Recent Manitoba Legislation.

The Manitoba Legislature, at its recent session, passed the following acts affecting steam and electric railways, telephone and telegraph companies, and allied interests:

Authorizing the guarantee of certain bonds of the Canadian Northern Ry. Co.

Amending the Manitoba Railway Act.

Amending Act of Incorporation of the Midland Ry. of Manitoba.

Amending the Municipal Electric Light, Gas and Telephone Act.

Amending the Railway Taxation Act.

Respecting municipal Telephone systems.

Respecting a government Telephone and Telegraph system.

Incorporating the Winnipeg and Northern Ry. Co.

Amending the Act incorporating the Winnipeg Grain and Produce Exchange.

G.T.R. SEMI-ANNUAL MEETING.

At the semi-annual meeting in London, Eng., April 5, the directors' report was presented for the half-year ended Dec. 31, 1905.

The following summary shows a comparison of the half-year's revenue account with that of the corresponding half-year, ended Dec. 31, 1904:

Dec. 31, 1904.		Dec. 31, 1905.
£3 129,814	Gross receipts	£3,288,993 3 4
	Deduct—	
2,205,091	Working expenses, being at the rate of 71.32% as compared with 70.45% in 1904.	2,345,715 15 2
924,723	Net traffic receipts	943,277 8 2
12,931	Amount received from the International Bridge Co.	16,012 16 7
1,677	Interest on Toledo, Saginaw, and Muskegon bonds	901 13 11
6,507	Interest on bonds of Central Vermont Ry.	6,506 14 3
61,855	Interest on securities of controlled lines and on St. Clair tunnel bonds acquired by the issue of Grand Trunk 4% debenture stock	61,855 16 0
23,760	Balance of general interest account	15,044 5 2
£1,031,453	Net revenue receipts	£1,043,598 14 1

Following are the net revenue charges for the half-year, compared with the corresponding period:

Dec. 31, 1904.		Dec. 31, 1905.
£ 77,603	Rents (leased lines)	£ 77,603 0 9
488,733	Interest on debenture stocks and bonds of the Co	488,745 19 10
47,590	Interest on debenture stock and bonds of lines consolidated with the G.T.R. Co.	47,815 15 0
	Canada Atlantic Ry. deficit for the year 1905	18,037 10 6
613,926		632,202 6 1
14,576	Deduct— Detroit, Grand Haven, and Milwaukee Surplus	17,381 13 11
599,350		614,820 12 2
432,103	Leaving a surplus of	428,778 1 11
£1,031,453		£1,043,598 14 1

Adding the balance of £7,423 8s. 3d. at the credit of net revenue account June 30, 1905, to the above surplus for the past half-year of £428,778 1s. 11d., the total amount available for dividend is £436,201 10s. 2d., from which the directors recommend the payment of the following dividends, viz.:

For the half-year on the 4% guaranteed stock	£139,760 16 10
For the half-year on the first preference stock	85,420 15 0
For the half-year on the second preference stock	63,210 0 4
2% on the third preference stock	143,292 14 4
	£431,684 6 6

leaving a balance of £4,517 3s. 8d. to be carried forward to next half-year's account.

Following table exhibits a comparison of the receipts for the half-years ending Dec. 31, 1905 and 1904:

TRAFFIC STATISTICS.

Description of Receipts.	1905.	1904.	Increase.	Decrease.
	£	£	£	£
Passengers	1,023,981	991,484	32,497	....
Mails and express	161,616	155,777	5,839	....
Freight and live stock	2,027,180	1,906,145	121,035	....
Miscellaneous	76,216	76,408	....	192
	£3,288,993	£3,129,814	£159,179	....
Passengers carried	5,755,671	5,298,686	456,991	....
Average fare per passenger	3s.6¼d.	3s.9d.	....	2¼d.
Tons of freight and live stock	7,579,878	7,043,376	536,502	....
Average rate per ton	5s.4¼d.	5s.5d.	....	¾d.
Tons carried one mile	1,393,513,496	1,329,229,304	64,284,192	....
Earnings per train mile	81.60d.	78.75d.	2.85d.	....

The average rate per ton per mile on the entire freight business was 0.71c. compared with 0.70c., in the corresponding half-year.

The working expenses, excluding taxes, amounted in the half-year to £2,294,201 or 69.75% of the gross receipts, as compared with £2,154,379, or 68.83% in the corresponding half-year; an increase in amount of £139,822, and in the proportion to the gross receipts of 0.92%.

The following table exhibits a comparison of the revenue expenditure, including taxes, for the half-years ended Dec. 31, 1905 and 1904:

Description of Expenditure.	1905.	1904.	Increase.	Decrease.
	£	£	£	£
Maintenance of way, and structures	625,060	581,046	44,014	....
Maintenance of equipment	476,790	359,189	117,601	....
Conducting transportation	1,123,155	1,146,567	....	23,412
General expenses	69,196	67,577	1,619	....
Taxes	51,515	50,712	803	....
Total	£2,345,716	£2,205,091	£140,625	....
Percentage of gross receipts	71.32	70.45	0.87	....
Expenditure per train-mile	58.10d.	55.48d.	2.71d.	....

The train mileage of the half-year compares with that for the half-year ending Dec. 31, 1904, as follows:

Description of Mileage.	1905.	1904.	Increase.	Decrease.
Passenger	4,275,345	4,187,985	87,360	....
Freight	5,084,625	5,028,243	56,382	....
Mixed trains	314,196	322,257	....	8,061
Total	9,674,166	9,538,485	135,681	....

From the foregoing statements it will be observed that the G.T.R. gross receipts for the half-year show an increase of £159,179, or 5.08%; the working expenses, including taxes, an increase of £140,625, or 6.38%; and the train mileage an increase of 135,681, or 1.42%.

The total charges to the capital account amounted for the half-year to £199,614 5s. 0d. Of this sum, £544 6s. 11d. was discount and commission on 4% guaranteed stock issued during the half-year.

The Locomotive and Machine Company of Montreal, Limited

IMPERIAL BANK BUILDING, VICTORIA SQUARE, MONTREAL, CANADA

Builders of Locomotives for all Classes of Service

Structural Steel

—FOR—

BRIDGES, BUILDINGS, ROOF TRUSSES, ETC.

NEW YORK OFFICE:
American Locomotive Company,
111 Broadway

LONDON OFFICE:
Alfred Davis, 26 Victoria Street,
Westminster, S.W.

The actual expenditure on capital account was as follows:

New works	£ 66,135 4 9
Double track	78,820 16 3
Land purchased	54,113 17 1
	£199,069 18 1

One engine has been sold, 7 mogul freight engines have been purchased, and 4 baggage cars were built in the company's shops during the half-year on revenue account. Since 1898 considerable amounts have been specially appropriated out of revenue to the reconstruction of the bridges over the main lines. The whole of this extraordinary expenditure has now been provided for, and the work is nearly completed. Revenue being thus relieved from this special charge, the directors propose to apply the same principle to the renewal of locomotives, which has become a matter of urgency, but which has necessarily, to some extent, been postponed pending the strengthening of the bridges.

Owing to delay in obtaining the necessary legislation, the control and operation of the Canada Atlantic Ry. was not transferred to the company until Oct. 1, although under the terms of the agreement the company became responsible for the interest on the bonds from Jan. 1, 1905. The deficiency of £18,037 10s. 6d. in the working for the year cannot, therefore, be taken as indicative of what may be expected now that the line is in full charge of the officers of the G.T.R., and the Board anticipates a very considerable improvement in the net earnings in the future.

The gross receipts of the Grand Trunk Western Ry. for the half-year amounted to £580,490, against £522,280 in 1904, an increase of £58,210, and the working expenses were £477,568, against £444,173, an increase of £33,395, leaving a net profit of £102,922, against £78,107, an increase of £24,815, compared with the corresponding period of 1904. The net revenue charges for the half-year were £84,678 against £82,744, so that there was, on Dec. 31, a net revenue credit of £18,244, which amount is carried forward, as compared with a net revenue debit of £4,637 for the corresponding half-year of 1904. The number of passengers carried during the half-year was 876,296, against 868,989, an increase of 7,307, or 0.84%; and the passenger train receipts, including mails and express receipts, were £181,897, against £181,987, a decrease of £90. The quantity of freight moved during the half-year was 1,569,898 against 1,353,515 tons, an increase of 216,383 tons, or 15.99%, and the receipts from this traffic were £397,874, against £339,531, an increase of £58,343, or 17.18%.

The gross receipts of the Detroit, Grand Haven, and Milwaukee Ry. for the half-year were £169,524 against £160,915 in 1904, an increase of £8,609; the working expenses were £115,061, against £109,364, an increase of £5,697; thus leaving a balance of £54,463, against £51,551, and showing an increase in net revenue of £2,912 compared with the corresponding half-year of 1904. The net revenue charges for the half-year were £37,081, against £36,975 in 1904, so that there was a net revenue surplus of £17,382, as compared with £14,576 for the corresponding period of 1904. The number of passengers carried during the half-year was 377,747, against 415,333, a decrease of 37,586, or 9.05%; and the passenger receipts, including mails and express receipts, were £62,669, against £62,070, an increase of £599 or 0.96%. The quantity of freight moved was 706,448 tons, against 669,853 tons in 1904, an increase of 36,595 tons, or 5.46%; and the receipts from freight traffic were £103,616, against £95,970 in 1904, an increase of £7,646, or 7.97%.

Contracts for the construction of the Lake Superior Branch and for the main line of the G.T. Pacific Ry. from Portage la Prairie to Edmonton, a total distance of about 1,000 miles, have been let to leading Canadian firms of contractors, and work is already in progress on certain sections. With the opening of spring, work will be pushed forward vigorously, and it is anticipated that the lines in question will be completed in the early part of the autumn of 1907, in time for handling the harvest of that year. The Government has also in hand the contract for construction of the line from Lake Superior Junction to Winnipeg, which it is intended shall be completed in time to commence operations simultaneously with the sections in charge of the G.T. Pacific Co. Arrangements for construction of rolling stock required under the contracts with the Government are now in process of completion.

The directors have to report, with much regret, the death of Lewis James Seargeant, who had been associated with the company for upwards of thirty years; twenty years as Traffic Manager or General Manager, and for the last ten years as Director. They have elected the Hon. Nathaniel Charles Rothschild to fill the vacancy. The retiring directors are A. W. Smithers, G. von Chauvin, Col. F. Firebrace, and Sir W. L. Young, Bart., all of whom are eligible and offer themselves for re-election. F. Whinney, one of the auditors in London, and C. Percy, one of the auditors in Canada, also retire and offer themselves for re-election.

REPORTS OF OFFICIALS.

The Chief Engineer stated that the length of the G.T.R. maintained and operated during the year 1905 was 3,535 miles, or one mile less than it was in 1904, due to trifling re-adjustments on several parts of the system. A second main track has been completed between Hyde Park and Kingscourt on the 17th District, its length being 33 miles. The expenditure during 1905, on the permanent way and structures, was $4,349,459.13, or $321,700.53 over that of the year 1904. The outlay on the track or permanent way, together with repairs of roadway, ballast and ballasting, clearing snow, renewals of rails and ties, including their proportion of the cost of superintendence, was $2,572,061.18 in 1904, or at the rate of $727.39 per mile; in 1905 the amount was $2,598,904.11, or at the rate of $735.19 per mile. New stations have been built at Yarmouth, Beaurepaire, Millbrook, Acton, Harriston, Mount Forest, Wingham, Simcoe and Renton. The materials used for renewals and repairs of main tracks and sidings were:

New steel rails laid in track	25,199 tons
Re-rolled steel rails laid in track	6,800 "
Partially worn steel rails laid in branch lines and sidings	24,088 "
New ties placed in track	1,456,830
Ballast (cubic yards)	656,426

The Superintendent of Motive Power reported expenditure, mileage, etc., as follows:

Half-year ended.	Total Expenditure.	Train Mileage.	Rate of Expenses per Mile. Train	Engine	Car.
	Dollars.		Cents	Cents	Cents
Dec., 1905	3,967,857	9,674,166	41.02	31.96	2.54
" 1904	3,707,044	9,538,485	38.86	30.04	2.44

An increase in expenditure of $260,813.00, or 7.04%, compared with an increase in train miles of 135,681, or 1.42%.

	Passenger Trains	Freight Trains	Mixed Trains.
The average number of cars moved per train was	4.6	26.4	8.0
And for the corresponding period	4.6	25.9	8.2

The comparative cost of repairs per train, engine and car mile was:

Cost per Mile.	Repairs and renewals of Locomotives. 1905.	1904.	All repairing charges, including shop machinery, tools, and marine equipment, etc. 1905.	1904.
	Cents.	Cents	Cents.	Cents.
Train	11.95	7.51	13.31	10.13
Engine	8.61	5.80	10.37	7.83
Car	0.67	0.47	0.82	0.63

The Superintendent of the Car Department reported expenditure, mileage, etc., as follows:

Half-year ended.	Total Cost of repairs and renewals.	Total Miles run by Cars. Passenger.	Freight.	Total.	Cost per Mile. Car.	Train.
	Dollars.				Cents.	Cents.
Dec., 1905.	1,033,148	20,595,259	135,850,006	156,445,265	0.660	10.68
" 1904.	781,779	20,067,215	132,159,481	152,226,696	0.514	8.20

An increase in expenditure of $251,369, or 32.15%, with an increase in car miles of 4,218,569, or 2.77%.

The car statistics shows 4 baggage cars built new, and 1 tank and 3 coal cars rebuilt at company's shops, at cost of revenue.

The revenue account for the half-year follows:

RECEIPTS.

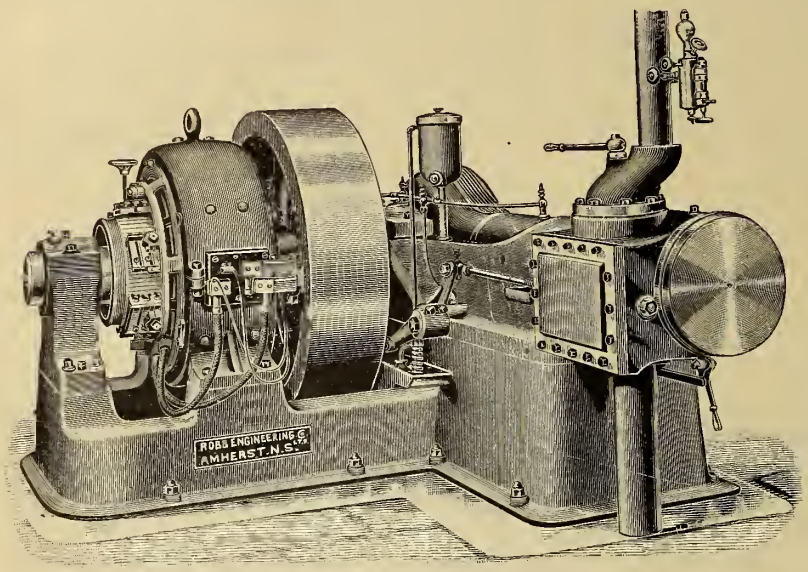
	£ s. d.	£ s. d.	£ s. d.
Passengers		1,029,596 15 10	
Less—			
International bridge tolls	1,621 5 3		
St. Clair tunnel tolls	3,994 14 7		
		5,615 19 10	
Mails and express			1,023,980 16 0
Freight and live stock		2,113,970 3 9	161,615 13 7
Less—			
Cartage, etc.	58,718 17 9		
International bridge tolls	11,893 9 11		
St. Clair tunnel tolls	16,267 5 2		
		86,780 12 10	
			2,027,180 10 11
Miscellaneous receipts, rents, tolls, etc.			76,216 2 10
			£3,288,993 3 4

EXPENDITURE.

		£ s. d.
Maintenance of way and structures	19.00%	625,060 1 11
Maintenance of equipment	14.50%	476,789 12 10
Conducting transportation	34.15%	1,123,155 1 3
General expenses	2.10%	69,196 4 0
Total working expenses	69.75%	2,294,201 0 0
Taxes	1.57%	51,514 15 2
	71.32%	2,345,715 15 2
Balance to net revenue account		943,277 8 2
		£3,288,993 3 4

The President, Sir C. Rivers Wilson, was in the chair, and in moving the adoption of the report, and the declaration of the divi-

NOT ONE CENT FOR REPAIRS



An experienced engineer has written us as follows:—"After eighteen months of hard service, the "Robb" engines are in excellent shape, running very smooth and without a bit of vibration. Up to this time they have not cost one cent for repairs, the only expense being steam, oil and packing and this below the average. Perfect alignment, parts well machined and good design make the "Robb" the most economical and labor saving engine that has ever come to my notice."

ROBB ENGINEERING CO., LIMITED, AMHERST, N.S.

DISTRICT OFFICES
320 Ossington Avenue, Toronto; Wm. McKay, Manager.
Bell Telephone Building, Montreal; Watson Jack, Manager.
355 Carlton Street, Winnipeg; J. F. Porter, Manager.

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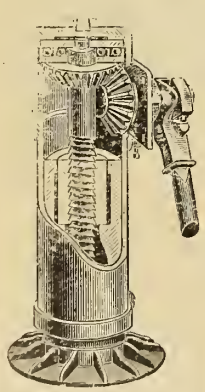
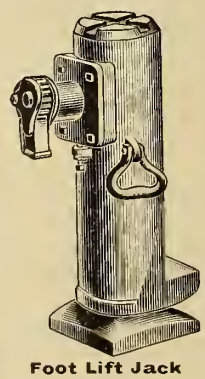
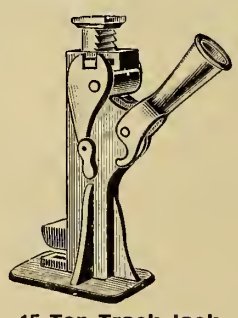
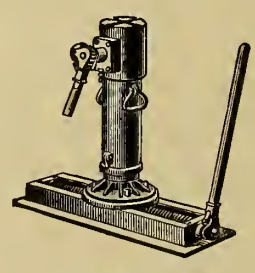
ARE MADE IN CANADA AND SAVE YOU DELAY AND DUTY ON AMERICAN MADE JACKS.

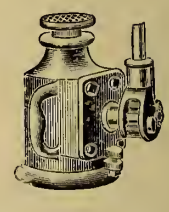

Sectional View


Foot Lift Jack

50 Styles 8 to 70 Tons Capacity
Carried in stock for IMMEDIATE DELIVERY


15 Ton Track Jack


Traversing Jack


Journal Jack

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dends recommended therein, referred to the change in the directorate by the death of L. J. Seargeant, and the election of the Hon. C. Rothschild, and analyzed at considerable length the figures respecting the operations for the half year. The period was a prosperous one, but although the revenue had increased there had also been a considerable increase in the expenditure. Of the increase of 536,502 tons of freight moved no less than 435,822 tons was in local traffic. The increase in working expenses is more than accounted for by the increased expenditure under the heads of maintenance of way and structures, and maintenance of equipment, there being a reduction under the head of conducting transportation. The increase in the maintenance charges was principally accounted for by the fact that the expenditure in 1904 was largely curtailed owing to the severe winter, and the consequent loss of revenue, and considerable leeway had to be made up. The expenditure under the head of conducting transportation showed a decrease of £23,412, the principal item of which was £21,785 in the payment on account of car mileage—the balance against the company in respect of the exchange of cars with other companies—due largely to increased facilities for the prompt handling of traffic. He next referred to the satisfactory operations of the subsidiary companies; the probable increase of taxation on the lines in Michigan, and in alluding to the dividends, stated that in 1895 the gross revenue was £4,417,000, while in 1905 it was £7,415,000; the net revenue in 1895 was £1,067,000, while in 1905 it was £2,016,000; in 1895 the company was not paying its fixed charges; at present dividends were being paid on all stocks with the exception of the ordinary shares, and the value of the company's securities had increased by £25,000,000. He mentioned this to show that the increased prosperity of the company went hand in hand with the improvement in the material condition of the railway, and that this successful financial consummation could not have been arrived at, and these dividends earned, if money had not been spent freely and continuously in the improvement of the property.

In connection with the reconstruction and re-equipment of the road there was a great deal to be done, and he desired to direct attention to the necessity of at once proceeding to a larger measure of renewal of locomotives. The official stock of locomotives paid for out of capital and maintained out of revenue, was 1,000, exclusive of the Central Vermont Ry., and under ordinary conditions they should be replaced at the rate of 50 a year. During the last eight years the company had replaced 265 locomotives, or at the rate of 33 a year, representing an expenditure of a little over £100,000. What it was now proposed to do was to build immediately or purchase 150 new locomotives, spreading the charge over five years. At the same time it was proposed to charge the cost of an annual addition of 30; that will make during the five years an addition to stock of 300 altogether, representing a total expenditure of £900,000 or £180,000 a year. This would involve an additional charge of £80,000 a year out of revenue. As regarded cars, although the company had been for some years replacing old cars by others of a larger capacity, there was still much to be done. The matter, however, did not immediately press, because arrangements had been made for the commencement of a supply of the equipment of the G.T. Pacific Ry. A contract had been made between the G.T. Pacific Ry. and the Canada Car Co. for the supply of 12,000 cars at the rate of 2,400 a year, and pending the completion of that railway, the G.T.R. would have the use of them, paying a mileage to the G.T.P. Ry. There will therefore be no immediate pressure on the company to build new cars on its own account.

The electrification of the St. Clair tunnel was in progress. The cost would be about £90,000, payable in instalments extending over five years; but it was estimated that there would be a saving of $60,000 a year, The company had acquired a steam ferry for its Detroit company to operate between Grand Haven, Mich., and Milwaukee, Wis., and had entered into an arrangement with the Buffalo, Rochester and Pittsburg Rd., for the construction of a steam ferry to operate on Lake Ontario between Port Charlotte, N.Y., and Port Hope, Ont. The operation of this ferry was expected to relieve the congestion at the International bridge, and on the long haulage by Buffalo of the 600,000 or 700,000 tons of coal which the company purchased in the U.S. during the year for its locomotives. In conclusion he referred to the successful issue of £1,000,000 4% debenture stock, for which application for £9,000,000 were received in 24 hours; and to the letting of contracts for 932 miles of construction on the G.T. Pacific Ry.

The resolution was seconded by A. W. Smithers and passed. Resolutions were also passed re-electing A. W. Smithers, Col. F. Firebrace, G. Von Chauvin, and Sir W. L. Young, as directors; re-electing F. Whinney, London, Eng., and C. Percy, Montreal, auditors; and thanking the chairman, directors and executive officers for their services.

Orders by the Railway Commissioners.

The following orders have been issued by the Board of Railway Commissioners:

963. Mar. 1.—Authorizing the C.P.R. to construct a branch line in the Nipissing District to the premises of the Temagami Lumber Co.

964. Mar. 5.—Approving deviation of the G.T. Pacific Ry. east of Kakabeka to the city limits of Fort William.

965. Mar. 5.—Sanctioning location plans of the Toronto and Niagara Power Co.'s right of way from Beach Road Station to a point in Saltfleet tp., Ont., mileage 39.8 to mileage 40.6.

966. Mar. 2.—Authorizing the G.T.R. to construct a branch line in Lakefield village, Ont., to the premises of the Dickson Lumber Co.

967. Mar. 2.—Sanctioning location plans for the Canadian Northern Ry., Battleford branch, from the main line at sec. 35, tp. 44, range 17, w. 3rd m., to Battleford, Sask., 8 miles.

968. Mar. 8.—Extending time fixed in the Board's order of Aug. 29, 1905, for the use of a crossing of the G.T.R. near Utopia, Ont., by the C.P.R. Toronto-Sudbury line.

969. Mar. 8.—Extending time for the use of the crossing of the G.T.R. line near Coldwater, Ont., by the C.P.R. Toronto-Sudbury line.

970. Mar. 8.—Extending time for the use of the crossing of the tracks of the G.T.R. Penetang Branch by the C.P.R. Toronto-Sudbury line.

971. Mar. 8.—Extending time for the use of the crossing of the G.T.R. tracks at Alliston, Ont., by the C.P.R. Toronto-Sudbury line.

972. Mar. 8.—Extending time for the use of the crossing of the G.T.R. tracks at Tottenham by the C.P.R. Toronto-Sudbury branch.

973. Mar. 7.—Approving location plans of a branch from the C.P.R. transcontinental line at Moose Jaw, Sask., to the west boundary of sec. 30, tp. 20, range 29, w. 2nd m., 36.3 miles.

974. Mar. 6.—Authorizing the G.T.R. Co. to construct a branch line in Palmerston, Ont., to the electric light premises.

975. Mar. 3.—Amending the Board's order no. 956, by striking out the words "by the applicant company." This was an order authorizing the reconstruction of the C.P.R. bridge across the Ottawa River at Ste. Anne de Belleville, and the original order provided for a swing span to be put in by the company should the construction of the proposed ship canal to the Georgian Bay render it necessary.

976. Oct. 17, 1905.—Interchange of freight at Winnipeg. See pg. 243.

977. Oct. 9.—Authorizing the Canadian Northern Ry. to divert the Pembina highway and to acquire certain lands in the parish of St. Boniface, Man.

978. Oct. 1.—Providing for the protection of Albert St. at the C.P.R. crossing, and the opening of Hamilton St. across the C.P.R., Regina, Sask., on the application of the city council.

979. Mar. 12.—Authorizing a diversion of the James Bay Ry. where the line crosses the Orillia Island, Rama Island, and Snake Island, Muskoka, Ont.

980. Mar. 12.—Authorizing the G.T.P. Ry. to construct a wharf on the Kaministikwia River, West Fort William, Ont.

981. Mar. 12.—Authorizing a diversion of the Guelph and Goderich Ry. line near the 40th mile.

982. Mar. 13.—Sanctioning change in location of the C.P.R. Toronto-Sudbury line between mileage 114 and mileage 119.6 in Conger tp., Ont.

983. Mar. 6.—Granting permission to the Brandon, Saskatchewan and Hudson Bay Ry. to construct its railway at rail level across a number of highways in Greenwood municipality, Man.

984. Mar. 12.—Amending the order authorizing the Canadian Northern Ry. to lay its tracks at rail level across the C.P.R. at Hartney, Man., and providing for the installation of interlocking plants on both lines, and the maintenance of a watchman at the crossing at the cost of the Canadian Northern Ry.

985. Mar. 14.—Authorizing the Dominion Natural Gas Co., Dunnville, Ont., to lay its mains under the G.T.R. tracks at four points near Jarvis, Ont., on specified conditions.

986. Mar. 14.—Authorizing the Niagara, St. Catharines and Toronto Ry. to construct a branch line in Thorold, Ont.

987. Mar. 13.—Granting permission to the Sandwich West municipal council to construct a culvert under the Michigan Central Rd. tracks in connection with the Sullivan Creek drain.

988. Mar. 12.—Directing that the C.P.R. and the Nelson and Fort Shepherd Ry. restore joint tariff W, no. 273. See pg. 241.

989. Feb. 13.—Authorizing the Canada Southern Ry. to take certain lands in Sandwich West township, Ont., for the purpose of the railway.

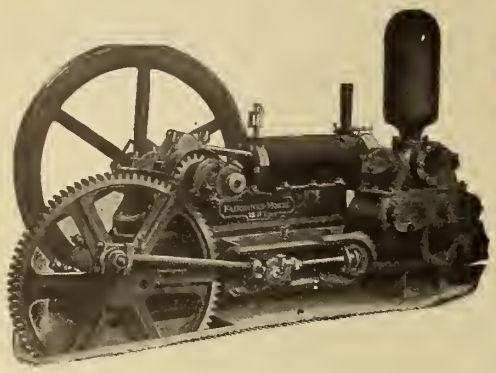
990. Mar. 16.—Approving of standard specifications of the Bell Telephone Co. of Canada for railway crossings.

991. Mar. 12.—Authorizing the Brantford Electric and Operating Co., Ltd., to carry electric wires over the tracks of the G.T.R. in Brantford, Ont.

992. Mar. 19.—Authorizing the General Manager of the White Pass and Yukon Ry. to prepare tariffs of tolls.

993. Mar. 17.—Interswitching at London, Ont. See April, pg. 205.

994. Mar. 16.—Approving location of the proposed line of railway of the Niagara-Welland Power Co., from Brantford to London, Ont., 51 miles.



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995. Mar. 16.—Approving location of the Niagara-Welland Power Co.'s proposed line of railway from near Preston to Guelph, Ont., 11.91 miles.

996. Mar. 16.—Approving location of the Niagara-Welland Power Co.'s proposed line of railway from Galt to Berlin, Ont., 13.72 miles.

997. Mar. 20.—Approving standard plans for 150 ft. through truss span, and general specifications for bridges for the C.P.R.

998. Mar. 16.—Approving location plan of the Niagara-Welland Power Co.'s proposed line of railway from Stamford tp. to the International boundary, Niagara River, 6.78 miles.

999. Mar. 19.—Sanctioning detail plans of bridges at mileage 31.98 Fort William section, and mileage 74.5 on the Ignace section, C.P.R., to provide for a second track.

1000. Mar. 23.—Authorizing the C.P.R. to construct a bridge across the Black River on the Toronto-Sudbury branch, and approving detail plans for the same.

1001. Mar. 19.—Sanctioning plans for the construction of two bridges over the Don River, about 4.80 miles from Toronto, for the James Bay Ry.

1002. Mar. 27.—Authorizing the G.T.R. to construct a branch line from the company's Lachine Canal bank branch to the Ogilvie Flour Milling Co.'s siding.

1003. Mar. 23.—Sanctioning location plans for the Walkerton and Lucknow Ry. from Proton station, on the C.P.R. Toronto, Grey and Bruce branch, to Walkerton, Ont., 36.44 miles.

1004. Mar. 24.—Minimum carload weights of metallic shingles. See pg. 241.

1005. Mar. 24.—Amending Canadian Freight Classification no. 12. See pg. 241.

1006. Mar. 22.—Authorizing the G.T. Pacific Ry. to construct a branch line in Fort William, Ont.

1007. Mar. 23.—Authorizing the C.P.R. to construct a branch line at Liberty St., Toronto.

1008. Mar. 22.—Authorizing the Brandon, Saskatchewan and Hudson Bay Ry. to carry its telegraph lines across the Canadian Northern Ry. tracks at Wakopa, Man., upon terms and conditions named.

1009. Mar. 22.—Approving location of the Tillsonburg, Lake Erie and Pacific Ry., Zorra tp., Ont.

1010. Mar. 7.—See pg. 243.

1011. Mar. 23.—Directing the C.P.R. to provide a farm crossing on lot 8, con. 10, Morris tp., on the Guelph and Goderich Ry.

1012. March 23.—Authorizing the Berlin, Ont., water commission to carry its water mains under the G.T.R. tracks at four street crossings in the town.

1013. Mar. 19.—Sanctioning plans for a 20 ft. concrete arch over Peter's Lane, one mile west of London, Ont., by the C.P.R.

1014. Mar. 30.—Approving plans and specifications for a wharf in the Kaministikwia River, Fort William, Ont., for the G.T. Pacific Ry.

1015. Mar. 27.—Authorizing the C.P.R. to take certain lands in Toronto for railway purposes.

1016. Mar. 30.—Approving location plans for the Ridgeville branch of the Canadian Northern Ry., between sec. 30, and sec. 27, p. 1, range 6, e.p.m., Man., 6.60 miles.

1017. Mar. 30.—Approving deviation from previously located line of the G.T. Pacific Ry., for about six miles, between sec. 6, tp. 14, range 26, w.p.m., to sec. 27, tp. 14, range 27, w. p.m.

1018. Mar. 30.—Sanctioning plans for deviation from the constructed line of the C.P.R. between Gull Lake and Carmichael, Sask., mileage 36 to mileage 42.6.

1019. Mar. 30.—Sanctioning plans for deviation from constructed line of the C.P.R. between Seward and Antelope, Sask., mileage 15 to mileage 26.

1020. Mar. 30.—Approving location plans for the Canadian Northern Ry Ridgeville branch from mileage 25.18 to mileage 72.7.

RAILWAY DEVELOPMENT.

Projected Lines, Surveys, Construction, Betterments, Etc.

Alaska Central Rd.—The first 14 miles of this line from Seward, Alaska, have been reconstructed, the grade being reduced, and the line is in operation to mileage 45. Considerable work has been done between mileage 45 and mileage 105, including the partial construction of tunnels at mileage 52. The grade from mileage 75 to mileage 105 includes some of the heaviest work on the line. P. Welch & Co., Spokane, Wash., have the contract for this section of the line, and Rich & Harris are working at the tunnels. The contractors have great difficulty in keeping a sufficient force of men at work, as they go off prospecting or to the mines. Arrangements are being made to let further contracts for construction between mileage 105 and mileage 150. A contract has been let for the delivery of 5,000 tons of rails and fittings for delivery during the summer.

Application is being made for aid from Congress, and representatives of this and two other companies building railways in Alaska are at Washington negotiating with that object in view. (Sept., 1905, pg. 405.)

Algoma Central and Hudson Bay Ry.—Application is being made at the current session of the Dominion Parliament for an act authorizing the A.C. and H.B. Ry. to sell or lease its line in whole or in part to the Canada Central Ry., or to amalgamate with it, and to enter into agreements with the Manitoulin and North Shore Ry., the Ontario and Hudson Bay Ry., or the Canada Central Ry., for acquiring either or all of the lines in whole or in part. The Manitoulin and North Shore Ry. Co. is also applying for an act granting an extension of time within which it may construct its authorized lines, and authorizing it to sell its line to the Canada Central Ry., and to make agreements with the C. C. Ry., the A. C. and H.B. Ry., and the O. and H.B. Ry. (Mar., pg. 131.)

Burk's Falls and French River Ry.—Application will be made at the current session of the Dominion Parliament for an act incorporating a company with this title with all the usual powers to construct a railway, and to make arrangements with other railways and companies. D. R. McLean, Burk's Falls, Ont., is solicitor for the applicants.

Cape Breton Coal, Iron and Ry. Co.—Application has been made to the Dominion Government for a subsidy in aid of the construction of the company's projected line from its collieries at Broughton to Sydney and Louisburg, N.S. (Feb., pg. 63.)

The Central Ry. Co. of Canada is applying at the current session of the Dominion Parliament for an act increasing its capital stock and borrowing powers, to ratify and confirm agreements for the purchase of other railways, and to authorize the purchase of connecting lines of railway. (Feb., pg. 63.)

Chicago, Milwaukee and St. Paul Ry.—In connection with the extension of this line to Seattle, Wash., for which a contract has been let, it is reported that it is intended to further extend the line to Vancouver, B.C. Recent press reports from that city state that agents of the C.M. and St. P. Ry. had been in the city negotiating for the purchase of land on the water front, and two blocks for yards. It is also reported that land has been secured at Everett, Wash.

Cobalt Range Ry.—Application is being made at the current session of the Dominion Parliament by L. H. Timmins, J. J. Heney, C. A. McCool, M. J. Gorman, and J. McMartin, for an act incorporating a company with this title to construct a railway from Haileybury to the shore of Lake Temiskaming, to operate a steam ferry across the river to Fort Temiscamingue, Que.; to construct a line of railway from the ferry landing to Ville Marie, thence easterly and southerly either to a junction with the proposed Interprovincial and James Bay Ry., or the Lake Temiskaming Colonization Ry. near Kippewa station, Que. It is also desired to connect its lines with the Temiskaming and Northern Ontario Ry.; to construct telephone and telegraph lines, and to acquire the property, franchises and assets of the Temiskaming Navigation Co. L. H. Timmins and C. A. McCool are directors of the T.N. Co. which was recently organized to take over the Lumsden Line of steamers, operating on Lake Temiskaming.

Duluth, Rainy Lake and Winnipeg Ry.—A contract has been let to P. McDonnell, Duluth, Minn., for the extension of this line from Ashawa to Rainy Lake, Minn., 65 miles. A portion of the grading between Ashawa and Pelican Lake, 15 miles, has been completed, and work is in progress between Pelican Lake and Ash Lake. At Rainy Lake, the line will connect with a bridge to be constructed jointly by the company and the Canadian Northern Ry., and the D.R.L. and W.R. Co. will be enabled to run its trains into Fort Frances, over the C.N. Ry. (See Duluth, Virginia and Rainy Lake Ry., Dec., 1905, pg. 561. See also Canadian Northern Ry.)

Erie, London and Tillsonburg Ry.—The applicants to the Dominion Parliament for the incorporation of a company with this title are: E. V. Tillson, E. J. Jackson, Tillsonburg, Ont.; G. W. Teall, Vienna, Ont.; W. Thomson, London, Ont.; and W. Warnock, Aylmer, Ont. (April, pg. 193.)

Halifax and Eastern Ry.—H. A. Allan, A. A. Allan, of Montreal, and C. J. Coll, Manager Acadia Coal Co., Stellarton, N.S., are applying at the current session of the Nova Scotia Legislature for an act incorporating a company with this title for the purpose of constructing a railway from Halifax, along the eastern shore to Guysboro, about 250 miles, with a branch from Stellarton to Country Harbor, N.S. The company will have a capital of $2,000,000, and the Government will grant assistance in the form of a loan, secured by a first mortgage with interest at 3½%, of $12,000 a mile. Sir H. M. Allan is President of the Acadia Coal Co., which owns 10.25 miles of railway in the vicinity of New Glasgow, N.S., connecting with the Intercolonial Ry. at Lourdes Jct.

Hamilton Terminal Ry.—A large number of amendments were introduced into the bill in its passage through committee of the Ontario Legislature, and on April 11 the application was withdrawn. The bill was promoted by the Hamilton Steel and Iron Co., which now operates railway lines in connection with its blast furnaces, etc., and had for its object the obtaining of power to operate these as a separate company, and to construct extensions. A similar application made in 1905 was also withdrawn.

Hillcrest Ry. Coal and Coke Co.—The Dominion Parliament is being asked at its current session to pass an act incorporating a company with this title to construct a rail-

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way from Morrissey, B.C., through the Crow's Nest Pass to Hillcrest Jct., Alta., thence to Cardston, with branch lines to Pincher Creek, and to the coal deposits in tp. 5, range 1, w. 5th p.m.; and also from some point of the proposed line to Little Kootenay Lakes. The notice is dated at Ottawa, and is signed by C. P. Hill, agent for the company.

Intercolonial Ry.—A deputation from Moncton, N.B., waited on the Minister of Railways respecting the rebuilding of the I.C.R. shops at that point. The Minister has stated all along that the shops would be rebuilt at Moncton, and it is understood that he informed the deputation that the interest of the line would be best served by erecting the new shops on a fresh site which will be found within the limits of Moncton. It is stated that the buildings contemplated and their equipment will cost over $1,000,000, for which there is about $500,000 at present available. The plans for the new works are in course of preparation. W. A. Bowden, formerly with the Locomotive and Machine Co. of Montreal, has been appointed Designing Engineer to the Department of Railways, and his work will include the new shops at Moncton. (Dec., 1905, pg. 565.)

The James Bay Ry. is applying at the current session of the Dominion Parliament for an act authorizing it to construct branch lines from points on its line to Key Inlet, and to a point in Hutton township, thence northerly to a junction with the Eastern Division of the G.T. Pacific Ry. (April, pg. 193.)

Kettle Valley Lines.—A by-law has been passed granting a free right of way through Grand Forks, B.C., and providing for the starting of construction in June. The company agrees to build a passenger station in Grand Forks at a cost of $3,000. H. W. Warrington, General Superintendent, stated that construction would be started at once. In order to enter the city a bridge about 1,000 ft. long, which is estimated to cost $30,000, will have to be constructed. (Mar., pg. 131.)

Klondike Mines Ry.—The title of the English company which is constructing this line of railway is the Dawson, Grand Forks and Stewart River Corporation, and its offices are at 2 Suffolk Lane, Canon St., London, E.C., and not as given in our Feb. issue. J. Carlisle, one of the directors named, is associated with the Blue Star Line of steamers, and not as mentioned with the Red Star Line, which is a part of the International Mercantile Marine Co. The corporation, we were advised recently, has no Canadian directors, the other gentlemen referred to being directors of the K.M. Ry. Co. (April, pg. 193.)

London and Port Stanley Ry.—The City Engineer, of London, Ont., has completed an inspection of the line. He found the line between London and St. Thomas to be in a very bad state, but in a good condition between St. Thomas and Port Stanley. The report will be considered both by the City Council and the directors of the railway. The latter met April 24 and discussed the matter with General Manager Cotter, of the Pere Marquette Rd., who stated that the work of relaying the rails between London and St. Thomas was in progress, and other work would be done.

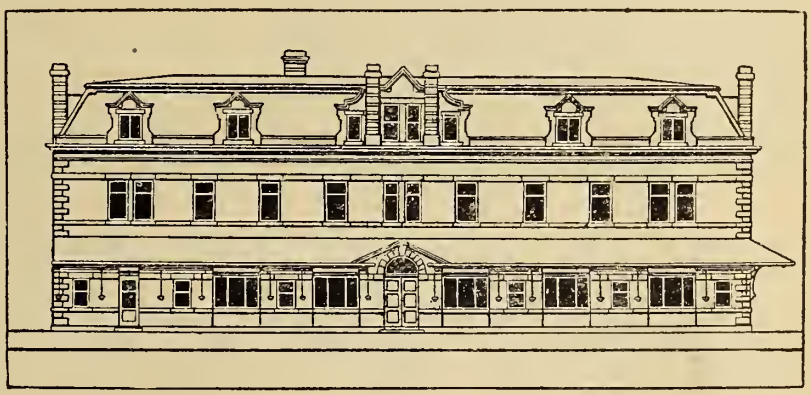
Manitoulin and North Shore Ry.—See Algoma Central and Hudson's Bay Ry.

Michigan Central Rd.—Work is in progress grading for a second track on the main line between Tilbury and Ridgetown, Ont. about 30 miles. W. E. Tench & Co., Detroit, Mich., are the general contractors, and the work has been sublet, the names and addresses of the sub-contractors, with the mileages in order from Tilbury, being: W. Boug, Essex, five miles; F. Gilhuly, Merlin, two miles; Wellwood and Graham, one mile; D. Murphy, Fletcher, five miles; Jos. Mitchell, Toronto, three miles; Wellwood and Graham, five miles; Wallace and Ryan, Merlin, four miles; W. Barton, Detroit, one mile; A. A. Hargrove, Detroit, three miles. The track will be graded 20 ft. from the present rails and the work involves the moving of 200,000 cubic yards of earth. The contract calls for the completion of the work by July 1. This will give the line a double track between Windsor and St. Thomas, Ont. (Dec., 1905, pg. 565.)

Midway and Vernon Ry.—A decision favorable to the company has been given in the B.C. courts, in the dispute with the Provincial Government respecting the subsidy. The Chief Justice held that work did actually commence before the expiration of the charter, and that the Subsidy Act therefore was in full force and effect. The owners of the M. and V. Ry. charter state that work will be started up again as soon as survey parties and construction gangs can be got together. A contract was signed with the Dominion Government July 28, 1905, for the construction of 150 miles of line, upon the usual terms and conditions as to a subsidy. (See British Columbia, Feb., pg. 61.)

Quebec Midland Ry.—The names of the provisional directors mentioned in the act for the incorporation of a company with this title, which has been approved by the House of Commons railway committee, are: J. E. Hardman, A. W. G. Wilson, R. B. Owens, H. C. Mitchell, Montreal, and F. H. Chrysler, Ottawa. The company seeks power to construct a railway from the northern shore of Lake Abbitibi to the west shore of Lake Metagami, Que. The company's offices are fixed at Ottawa; the capital is put at $500,000, and the bonding powers at $25,000 a mile. (Feb., pg. 65.)

Quebec Southern Ry.—We are advised that it is the intention of the company to extend the line from Pierreville east to Chaudiere, Que , as soon as possible, using the new Quebec Bridge and Ry. Co.'s line from that point into Quebec city. It is proposed to construct 50 miles during the present season to a point near St. Jean Deschaillons, or to a junction with the Lotbiniere and Megantic Ry. Orders have already been placed for part of the material for this line, and two engineering parties are engaged in making the permanent location. It is expected that tenders will be asked for this work during May. The line contractor expects to have the line completed and ready for operation by Oct. 1. (Dec., 1905, pg. 287.)



FRONT ELEVATOR, NEW STATION BEING ERECTED AT CHARLOTTETOWN, P.E.I.

Nicola, Kamloops and Similkameen Ry.—Tracklaying had been completed and work trains were being run for 15 miles from Spence's Bridge, Mar. 31, the tunnel having been completed some days previously. Work on the bridges is well forward and it is expected that the track will be laid to Coulter, and to the crossing at the forks early in May. It is hoped to put on a regular passenger and freight service in June. (Feb. pg. 63.)

Prince Edward Island Ry.—Work has been started on the construction of the new station at Charlottetown, a description of which has already been published. The contractor is E. A. Wallberg.

Tenders are under consideration for the construction of two cribwork rest piers for the Hillsborough River bridge. (Dec., 1905, pg. 567.)

The Pembroke Southern Ry. is applying at the current session of the Ontario Legislature for an Act authorizing it to extend its line from Pembroke, through Pembroke, Stafford, Alice and Petawawa townships.

Quebec and Lake St. John Ry.—The Minister of Public Works and other Quebec Government officials recently completed a trip of inspection over the new lines under construction by the company. The most important of these is the La Tuque branch, 33 miles long. On this 13 miles of track have been laid from the point of junction with the main line, and the grade for another 10 miles of track is practically completed. The steam shovel is at work at La Tuque, and grading is in progress at that end of the line. The will be laid with 80 lb. steel, and the specifications will provide for concrete or masonry culverts and steel bridges of the highest standard. In connection with the existing line, it has been decided to reconstruct it so as to bring it up to the standard of the best lines in Canada. (See Quebec, Montreal and Southern Ry., April, pg. 193.)

Salisbury and Harvey Ry.—The New Brunswick Legislature at its last session voted a subsidy to aid in the construction of the projected extension from Baltimore to Moncton, N.B., about 4 miles, and if a subsidy can be secured from the Dominion Parliament, construction will, it is said, be gone on with at an early date. A proposition has been made for the construction of a steel railway and general traffic bridge over the Petitcodiac River, and an arrangement is expected to be made with the Provincial and Dominion Governments about it.

Southern Central Pacific Ry.—In connection with the application being made for the revival of the act of 1903, incorporating the S.C.P. Ry. Co., with power to construct a railway from Vancouver through Kootenay Pass to Fort Churchill on Hudson Bay, it is proposed to ask the Dominion Parliament to authorize the construction of a branch line from near Skaist River, B.C., northeasterly, through the Yellowhead Pass to a junction with the main line at Cold Lake, Sask. F. H. Honeywell, Ottawa, is solicitor for the applicants. (Mar., pg. 131.)

Temagami, Cobalt and Temiskaming Ry.—The Dominion Parliament is being asked at

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its current session to pass an act incorporating a company with this title to construct a railway from Lake Temagami, by the most feasible route to the Ontario-Quebec boundary near North Temiskaming, thence to the Ottawa River, near Quinze Rapids; with power to construct branch lines and tramways. Latchford, McDougall & Daly, Ottawa, are solicitors for the applicants.

Temiskaming and Northern Ontario Ry.—Tenders were received to April 24, for all the work except ballasting and tracklaying, for an extension of the line at North Bay, to Nipissing Jct., about three miles, and from the junction with the C.P.R. in North Bay to Regina St., North Bay. The object of the first extension is to give a direct connection with the G.T.R. terminals at Nipissing Jct., and the second in order to provide terminals for local freight traffic. On the section of the line between North Bay and New Liskeard a new station is being built at Temagami, where a large tourist traffic has developed, the original station building being converted into a restaurant. (Dec., 1905, pg. 569.)

Toronto, Hamilton and Buffalo Ry.—An announcement has been made that the T., H. and B. Ry. proposed to spend $10,000 during the summer in extending the Brantford station and otherwise improving the property surrounding it. (April, pg. 195.)

Railway Rolling Stock Notes.

The Intercolonial Coal Mines Co., Westville, N.S., has received five coal hopper cars from Rhodes, Curry & Co., Amherst, N.S.

The Dominion Iron and Steel Co. is reported to have placed an order with Rhodes, Curry & Co. for 65 three-ton limestone cars.

The 10 baggage and express cars which the C.P.R. has under construction at its Angus shops, Montreal, are 60 ft. long, 9 ft. 10½ ins. wide over frames, without platforms.

The C.P.R. is building five conductors' vans at its Farnham, Que., shops, which will be 29 ft. long by 9 ft. wide over frames; body and underframe, wood; axles, 3¾ by 7 in., M.C.B.; brasses, 3¾ by 7 in.; cast iron wheels.

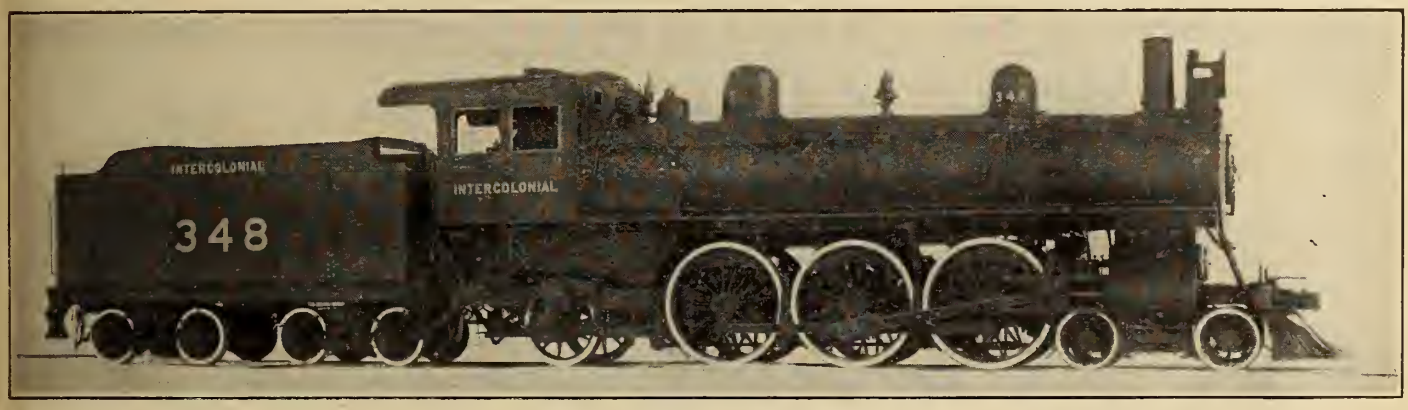
The C.P.R. received between Mar. 16 and April 19 the following rolling stock: 12 locomotives from the Locomotive and Machine Co. of Montreal; four locomotives, 170 box cars and 400 ballast cars from its Angus shops, Montreal.

The Intercolonial Ry. received between Mar. 22 and April 12 the following rolling stock: 12 refrigerator cars and four cabooses from Rhodes, Curry & Co., Amherst, N.S., and seven box cars, 60,000 lbs. capacity, from another Canadian builder.

and 9 ft. 10½ in. wide over frames, to have a capacity of 12 sections with smoking room and state room. The body and underframe is of wood, mounted on 6-wheel 5 by 9 in. trucks, 38 in. quadruple elliptic springs, and 36¼ in. steel-tired wheels, with 5 by 9 in. brasses. Simplex brake beams with adjustable heads, and Westinghouse air brakes are to be fitted.

The box cars under construction at the C.P.R. Angus shops, Montreal, will be 36 ft. 8 in. long by 9 ft. 0⅝ in. wide over frames, the inside measurements being 36 ft. long, 8 ft. 6 in. wide, and 8 ft. high. The body and underframes will be of wood, and they will be mounted on all steel diamond pattern trucks; wheels will be cast iron, and the axles will be 4½ by 8 in. M.C.B. The special fittings include Simplex bolsters and brake beams, Susemihl side bearings, and Westinghouse air brakes.

The C.P.R. is building 20 first-class cars at its Angus shops, Montreal, which will be 65 ft. long and 9 ft. 10½ in. wide over frames, and will have a seating capacity of 56 in the main room and 8 in the smoking compartment. The body and underframes will be of wood, mounted on 4-wheel passenger trucks, 38 in. quadruple elliptic springs, 36¼ in. steel-tired wheels, with 5 by 9 in. brasses. The special fittings include



PACIFIC TYPE PASSENGER LOCOMOTIVE BUILT FOR INTERCOLONIAL RY. BY LOCOMOTIVE AND MACHINE CO., OF MONTREAL

Toronto Union Station.—The bill asking for the incorporation of the Toronto Union Station Co. is under consideration by the House of Commons railway committee. The incorporators are: C. M. Hays, E. H. Fitzhugh, F. H. McGuigan, of the G.T.R.; Sir T. G. Shaughnessy, D. McNicoll, J. W. Leonard, of the C.P.R. The company will take over the present Union Station property in Toronto, in connection with the new station to be erected, and the works proposed to be carried out are declared to be for the general advantage of Canada. The G.T.R. had some actions in the Ontario courts, April 17, when orders were obtained giving it possession of the site for the new station, with the exception of such portions about which the arbitrators are to fix prices. The work of clearing the site preparatory to a start being made with construction will be gone on with at once. (Mar., pg. 131.)

The Canadian Northern Ry. issued a handsomely got up, annotated time table, entitled "Through a Thousand Miles of Wheatfields," in connection with the trip of Prince Arthur of Connaught in a special train over the line, April 7 to 9. The time table portion gives in addition to the time of arrival and departure of the special train, a well-written description of the country, and to this is appended a history of the growth of the system, a description of the country between Winnipeg and Port Arthur, Ont., and a number of illustrations.

The Locomotive and Machine Co. of Montreal has received an order for two 2½ yard Atlantic type steam shovels for the G.T. Pacific Ry. for June delivery. It has delivered four similar type shovels of 3½ yds. capacity to the C.P.R., and 35 10-wheel locomotives; and made the first delivery of 10-wheel locomotives to the Canadian Northern Ry. April 20, and will complete the delivery of the 10 on order early in May.

The C.P.R. is building a number of 30-ton flat cars at its Angus shops, Montreal, which will be 36 ft. 8 in. long by 8 ft. 10 in. wide. The body and underframes are of wood, mounted on all steel diamond pattern trucks, on cast iron wheels, with axles 4¼ by 8 in., M.C.B. standard. The special fittings include Simplex bolsters and brake beams, Susemihl side bearings and Westinghouse air brake.

The stock cars now under construction at the C.P.R. Angus shops will have wood body and underframes 36 ft. 8 in. long by 9 ft. 5 in. wide, the inside dimensions being 36 ft. long, 8 ft. 9¾ in. wide, and 7 ft. 1¼ in. high. Trucks are all steel diamond frame, with cast iron wheels, and 4¼ by 8 in. axles, M.C.B. standard. Simplex bolsters, Susemihl side bearings and Westinghouse air brakes are included in the special fittings.

The C.P.R. is building 10 sleeping cars at its Angus shops, Montreal, to be 72 ft. long Simplex brake beams with adjustable heads, and Westinghouse air brakes.

Mackenzie, Mann & Co. have placed an order with the American Palace Car Co. for the construction of four palace cars for the James Bay Ry. and the Halifax and South-Western Ry. The cars, which will be built in the U.S., are to be of the combined sleeping, parlor and dining car type similar to the Columbia, which recently completed an exhibition trip through Canada. The cars are to be 72 ft. 6 in. over end sills, and will be operated by the railway company. They are to be delivered Aug. 1.

The principal dimensions of the switching locomotive under construction for the Dominion Iron and Steel Co., Sydney, N.S., by the Locomotive and Machine Co. of Montreal, include the following: Cylinders, 18 by 24 in., wheel base of engine and tender, 38 ft.; of which the driving wheel base is 11 ft.; weight of engine and tender in working order, 170,000 lbs., the engine alone being 100,000 lbs.; heating surface, 1,188.2 sq. ft.; 1,074.4 being the tubes and 113.8 the firebox; grate area, 22.6 sq. ft.; boiler, straight top, radial stayed; working pressure, 160 lbs.; tubes, 188 of 2 in. diameter and 11 ft. long; driving journals, main 7½ by 8½ in.; tender, 4¼ by 8 in.; tender, wood frame; tank, U shape sloping back, 3,000 gals. capacity; coal capacity, 5 tons; wheels, cast iron, 44 in. centres, 51 in. outside diameter; tender wheels, 33 in. diameter.

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The simple cylinder locomotive which the Canada Car Co. is having built by the Locomotive and Machine Co. of Montreal, will have a wheel base of 7 ft., a tractive power of 12,495 lbs., and its total weight will be 60,500. Other dimensions are: Cylinders, 14 by 22 in.; boiler, straight top, 42¾ in. outside diameter, 150 lbs. working pressure; tubes, 92 of 2 in. diameter and 10 ft. 6 in. long; heating surface, 553.9 sq. ft., of which 501.8 sq. ft. represents the tubes and 52.1 sq. ft. the firebox, which is 43 3-16 by 34¾ in.; driving wheels, 44 in. outside diameter; round top saddle tank, having a capacity of 1,075 gals.; fuel capacity of one ton.

The general dimensions of the compound consolidation freight locomotives which the G.T.R. has ordered from the Locomotive and Machine Co. of Montreal, are: cylinders, 22½ and 35 in. diameter, by 32 in. stroke; driving wheels, 63 in. diameter; boilers, 63⅜ in. diameter; firebox, 96⅛ by 75¼ in.; 353 tubes, 15 ft. long by 2 in. diameter; wheel base, on drivers, 17 ft.; total wheel base of engine 25 ft., 6 in., total wheel base of engine and tender 56 ft., 2½ in.; total length over all 66 ft., 11 in.; weight in working order: on drivers, 174,000 lbs.; on engine truck, 26,000 lbs.; weight of tender, 143,300 lbs.,; total weight of engine and tender, 200,000 lbs.; working pressure, 210 lbs. per square inch; maximum height of engine 15 ft., 1¾ in.; width, 9 ft., 10 in.; capacity of tender, 7,000 gals. of water, 28,000 lbs. of coal.

Following are general dimensions of the 4-4-0 class locomotive which the Brockville, Westport and North-Western Ry. is having constructed by the Locomotive and Machine Co. of Montreal: Cylinder, 17 by 24 in.; tractive power, 15,220 lbs; wheel base, 8 ft. 6 in. rigid, 22 ft. 11 in. total; and 44 ft. 7 in. total of engine and tender; weight on drivers, in working order, 55,000 lbs., and of engine and tender, 149,000 lbs.; heating surface, 1,231.2 sq. ft., of which 1,111.8 sq. ft. is in the tubes and 119.4 in the firebox, which is 72 3-16 by 34⅜ in.; boiler, wagon top, crown bar stayed, 50 in. outside diameter, working pressure, 160 lbs.; journals, 7 by 8 in.; engine truck journals, 5 by 9 in.; tender, wood frame, U shaped level top, to have a capacity of 3,600 gals. of water and 6 tons coal; driving wheels, 56 in. centres, 62 in. outside diameter; tender wheels, 33 in. diameter.

The Intercolonial Ry. is having 16 locomotives of the 4-6-0 class built by the Locomotive and Machine Co. of Montreal, of which the principal dimensions follow:

CYLINDER.—Diameter, 21 in.; stroke 28 in.
WHEEL BASE.—Driving and rigid, 12 ft. 7 in.; total, 31 ft. 6 in.; total engine and tender, 57 ft. 10¼ in.
WEIGHT.—On drivers, 132,190 lbs.; in working order, 194,530 lbs.; engine and tender, 288,970 lbs.
HEATING SURFACE.—Tubes, 2,596 sq. ft.; firebox, 162 sq. ft.; total, 2,758 sq. ft.; grate area, 46 sq. ft.
AXLES.—Driving journals, 9 by 12 in.; engine truck journals, 5½ by 10¼ in.; trailing, 7 by 14 in.; tender, 5½ by 10 in.
BOILER.—Type, wagon top, radial stayed; outside diameter first ring, 63½ in.; working pressure, 200 lbs.
TUBES.—Number, 232 of 2¼ in. diameter by 19 ft. long.
TENDER.—Style of tank, water bottom; capacity 5,000 gallons water and 10 tons coal.
WHEELS.—Main, cast steel, 66 in. centres, 72 in. outside tire; engine truck, 33 in.; trailing, 48 in.; tender, 36 in.
SPECIAL FITTINGS.—Westinghouse air brakes and signals.

Following are general dimensions of the 10 passenger locomotives of the 4-6-0-155 type for which the G.T.R. has placed an order with the Locomotive and Machine Co. of Montreal:

CYLINDERS.—Type, simple; diameter, 19 in.; stroke, 26 in.
TRACTIVE POWER.—23,270 lbs.
WHEEL BASE.—Driving and rigid, 14 ft.; total, 24 ft. 4 in.; engine and tender, 51 ft. 8 in.
WEIGHT.—In working order, 156,000 lbs.; on drivers, 118,000 lbs.; engine and tender, 286,000 lbs.
HEATING SURFACE.—Tubes, 1,896.8 sq. ft.; firebox, 166 sq. ft.; total 2,062.8 sq. ft.; grate area, 30.5 sq. ft.
AXLES.—Driving journals, main, 9 by 10 in.; others, 9 by 10 in.; engine truck journals, 6½ by 10¼ in.; tender journals, 5½ by 10 in.
BOILER.—Type, extended wagon top, radial stayed, outside diameter first ring, 60¼ in.; firebox, 108⅛ by 40¾ in.; tubes, 270 of 2 in. diameter, and 13 ft. 6 in. long; working pressure 210 lbs. per sq. in.
TENDER.—Frame, 13 in. channel, style of tank, U shaped, level top; water capacity, 6,000 gallons; coal, 12 tons.
WHEELS.—Driving, 72 in. outside tire, 66 in. centres; material, cast steel; tender, 34 in. double plate cast iron G.T.R. print 4547.
BRAKES, ETC.—Westinghouse brakes to drivers and tender, and Westinghouse air signal.

Following are the principal dimensions of the 15 locomotives of the 2-8-0-C-203 type for which an order has been placed with the Locomotive and Machine Co. of Montreal by the G.T.R.:

CYLINDER.—Type, Richmond compound; diameter, 22½ and 35 in.; stroke, 32 in.
TRACTIVE POWER.—34,000 lbs.
WHEEL BASE.—Driving and rigid, 17 ft.; total, 25 ft. 9 in.; total engine and tender, 56 ft. 5½ in.
WEIGHT.—In working order, 203,000 lbs.; on drivers, 177,000 lbs.; engine and tender, 343,000 lbs.
HEATING SURFACE.—Tubes, 2,756.9 sq. ft.; firebox, 156 sq. ft.; total, 2,912.9 sq. ft.; grate area, 50.2 sq. ft.
AXLES.—Driving journals, main 9½ by 12 in.; others, 9 by 12 in.; engine truck journals, 6½ by 12 in.; tender, 5½ by 10 in.
BOILER.—Type, extended wagon top, radial stayed, working pressure, 210 lbs.; firebox, 96¼ by 75¼ in.; tubes, 353 of 2 in. diameter, and 15 ft. long.
TENDER.—Frame, 13 in. channel iron; style of tank, U shaped, level top; capacity, 7,000 gals. of water and 12 tons of coal.
WHEELS.—Driving, 56 in. centres, 63 in. outside diameter; materials, cast steel for main and cast iron for others; engine truck wheels, 31 in. diameter, cast iron centres, with 3 by 5½ in. steel tires; tender wheels, 34 in. double plate cast iron G.T.R. print 4547.
BRAKE, ETC.—Westinghouse brakes to drivers and tender, and Westinghouse air signal.

The Temiskaming and Northern Ontario Ry. is having two locomotives of the 4-6-0 class built by the Locomotive and Machine Co. of Montreal, of which the following are the principal dimensions:

CYLINDER.—Type, simple; diameter, 19 in.; stroke, 24 in.
TRACTIVE POWER.—21,380 lbs.
WHEEL BASE.—Driving and rigid, 13 ft. 6 in.; total, 23 ft. 8 in.; engine and tender, 50 ft. 7 in.
WEIGHT.—In working order, 106,000 lbs.; engine and tender, 242,000 lbs.
HEATING SURFACE.—Tubes, 1,640 sq. ft.; firebox, 140 sq. ft.; arch tubes, 22 sq. ft.; total, 1,802 sq. ft.; grate area, 30 sq. ft.
AXLES.—Driving journals, main, 8½ by 10 in.; others 8½ by 10 in.; engine truck journals, 5½ by 10 in.; tender, 5 by 9 in.
BOILER.—Type, extended wagon top, radial stayed; outside diameter first ring, 58¼ in.; working pressure 200 sq. ft.; firebox, 104 by 42 in.; tubes, 245 of 2 in. diameter and 13 ft. 2 5-16 in. long.
TENDER.—Frame, steel; tank, U shape gravity slides; capacity, 5,000 gallons water.
WHEELS.—Driving, 56 in. centres, 62 in. outside diameter; engine truck, cast iron, of 28 in. diameter; tender, cast iron, of 33 in. diameter.
SPECIAL FITTINGS.—Westinghouse American brakes to drivers, truck and tender, and Westinghouse air signals.

Canadian Car Service Bureau, etc.—Referring to the item on this subject in our April issue, pg. 231, we understand that the jurisdiction of the Canadian Freight Association's Western Lines Freight Inspection and Car Rental Department will embrace between Fort William, Ont., and Laggan, B.C., on the C.P.R. main line and to a point on the Crow's Nest Pass branch of the C.P.R. to be decided on. H. R. Patriarche is Manager, with office at Winnipeg. A car service bureau has been established for British Columbia embracing the lines in that Province east to Laggan, and to the point on the Crow's Nest Pass branch to which the Winnipeg office's jurisdiction extends. E. J. Travers has been appointed Manager with office at Nelson.

An issue of $1,000,000 of 4% first mortgage bonds of the Montreal Warehousing Co. has been authorized and is being offered in denominations of $1,000 or its equivalent in sterling. The bonds will run for 30 years, and they are unconditionally guaranteed, both as to principal and interest by the G.T.R.

Railway Finance, Meetings, etc.

Bruce Mines and Algoma Ry.—The line and property of this company is in charge of H. D. L. Gordon, Toronto, the receiver appointed by the Court of Exchequer. The line is not being operated at present, but as soon as the spring opens traffic will be resumed. The question of the future of the line has not been decided, but it may not be necessary to have a sale of the property by order of the court.

Canada Atlantic Ry.—Application is being made at the current session of the Dominion Parliament for an act authorizing the company to acquire, hold or dispose of the capital stock and debentures of the Pembroke Southern Ry., or to guarantee the principal and interest of the bonds, debentures or other securities of the line to an amount not exceeding $150,000.

Canadian Northern Ry.—Following are the directors for the current year: W. Mackenzie, President; D. D. Mann, Vice-President; Z. A. Lash, Chief Solicitor; and F. Nicholls, of Toronto; R. M. Horne-Payne, one of the partners in the financial firm of Sperling & Co., of London, Eng.

Canadian Pacific Ry.—The Alberta Government has asked the Provincial Legislature to pass legislation providing that a fee be charged for all titles to patents registered on lands. Homesteaders are exempted from the payment of the fees, thus leaving it to be paid by the C.P.R. and the Hudson's Bay Co. The fixing of the fee has been left to the Governor-in-Council.

Central Ontario Ry.—W. Mackenzie, of Mackenzie, Mann & Co., stated April 6 that his firm had purchased a block of the bonds of the C.O. Ry., and it is expected that an arrangement will be made with the conflicting interests to secure the other bonds and securities of the company, so that the litigation may be ended and the line pass completely under the control of Mackenzie, Mann & Co. The line extends from Picton to Bancroft, Ont., 104 miles; and a short extension is under construction from Bancroft northerly. The line was originally projected by S. J. Ritchie, of Akron, Ohio, to tap the iron ore deposits of Hastings county, but the expected traffic did not materialize owing to the difficulties in the treatment of the ore, it containing a very large percentage of sulphur. For a time the line was controlled by the late Judge S. Burke of Cleveland, Ohio. The railway has been in the hands of a receiver for some years, on account of the litigation between the bondholders and shareholders, and sections of both.

Columbia and Western Ry.—An act respecting the subsidy voted this railway, now owned by the C.P.R., was passed at the current session of the British Columbia Legislature. The act authorizes the Government to grant a subsidy of not more than 808,872 acres of land in full satisfaction of the aid earned by the company under its subsidy act, and in respect of sections one or two of the lines such lands to be designated and surveyed within a year from the passage of the act. Under the original subsidy act the company was granted 10,840 acres of land for each mile of railway constructed.

Crow's Nest Southern Ry.—Following are the officers and directors for the current year: President, Hon. G. A. Cox; Vice-President, Hon. R. Jaffray; Treasurer, E. Sawyer, St. Paul, Minn.; Managing Director and Secretary, G. G. S. Lindsey, K.C.; other directors: Sir H. M. Pellatt, E. R. Wood. The company does not publish an annual report.

Dominion Atlantic Ry.—At the annual meeting of shareholders held in London, Eng., Mar. 30, President C. Fitch Kemp expressed the regret of the directors that they were unable to propose a dividend on the pref-

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erence stock. The severe winter of 1904-5 was a very expensive one for the company, and the year generally had not been satisfactory. The current year so far had been satisfactory, the increase of income over last year amounting to about $38,000. The acquisition of the Midland Ry. was referred to, and Vice-President Roland, who had made a trip of inspection over the line, said it would undoubtedly prove very advantageous to the company. P. Gifkins, General Manager, spoke of the operations of 1905, and of the present and future of the line, in which he had every confidence. The directors and officers were thanked for their past services.

Great Northern Ry. of Canada.—Application will be made to the Board of Railway Commissioners, May 30, to recommend the Governor-in-Council to sanction an agreement amalgamating the G.N. Ry. and the Quebec, New Brunswick and Nova Scotia Ry., also for a similar recommendation to amalgamate the G.N. Ry. and the Chateauguay and Northern Ry.

Hampton and St. Martin's Ry.—An order for the sale of this railway has been made in the New Brunswick Equity Court, to satisfy a judgment for a claim for $514,000, principal and interest of a mortgage.

London and Port Stanley Ry.—The report of the audit of the books of the Pere Marquette Rd., operating the L. and P.S. Ry. under lease from the London, Ont., City Council, shows that the percentage on the earnings over $80,000 for 1905 will amount to about $8,000, so that the income for the year will be $18,000, the flat rental under the lease being $10,000 a year. The percentage in 1904 was $5,000.

Morrisey, Fernie and Michel Ry.—Following are the officers and directors for the current year: President, Hon. G. A. Cox; Vice-President, Hon. R. Jaffray; Managing Director and Secretary, G. G. S. Lindsey, K.C.; Treasurer, E. R. Wood, other directors: Sir H. M. Pellatt, Col. Jas. Mason, T. Walmsley and C. C. Dalton. This line, as well as the Crow's Nest Southern Ry., is operated in connection with the Crow's Nest Pass Coal Co.

New Brunswick Coal and Ry. Co.—An offer to lease this line for a period of 99 years, at a rental of $21,000 a year, has been made through Messrs. Greenshields, solicitors, Montreal, to the New Brunswick Government. The line is at present being put in repair and operated by a Commission appointed under an act of the Provincial Legislature.

Pembroke Southern Ry.—At a meeting held April 2, a resolution was passed confirming an agreement dated Feb. 10, with S. R. Poulin and the Canada Atlantic Ry., and authorizing the directors to issue bonds not exceeding $150,000, to be secured by a mortgage upon the company's property. The Pembroke Southern Ry. extends from Pembroke on the C.P.R. transcontinental line, to near Golden Lake on the Canada Atlantic Ry., and is operated under an agreement by the latter railway. The issue of bonds is made in connection with the recent transfer of the Canada Atlantic Ry. to the G.T.R. See also Canada Atlantic Ry.

Pere Marquette Rd.—The report for the year ended June 30, 1905, has been issued, and will be considered by the shareholders at the annual meeting in May. The company operates 2,377.35 miles of line, of which it owns 1,836.36, controls 244.11, and has trackage rights over 246.88 miles. The lines controlled include the Lake Erie and Detroit River Ry., with its leased line, the London and Port Stanley Ry. in Ontario, and the trackage rights include 154.51 miles on the Michigan Central Rd. between St. Thomas, Ont., and Suspension Bridge, N.Y., which did not come into the mileage for 1904. The gross earnings were $12,667,420.34, operating expenses and taxes $10,330,439.78, leaving net earnings of $2,336,980.56; other sources of income brought in $441,036.02, making altogether $2,778,016.58; interest and rentals required $2,800,447.06, which left a deficit of $22,430.48. The through freight line from Chicago to Buffalo was put in operation July 14, 1904, but a passenger service was not put in operation during the year. There was expended on additions and improvements during the year $1,254,192.51, and there was added to equipment 20 locomotives, 2,350 freight cars, two boarding cars and 22 passenger cars. The general balance sheet showed a debit balance of $504,498.24.

Qu'Appelle, Long Lake and Saskatchewan Ry. and Navigation Co.—A consultative committee representing this company's 6% first mortgage bonds has been appointed to act with the trustee for the protection of the bondholders generally. The secretary of the committee is F. Roche, 6 Princes St., London, E.C., England.

Quebec Bridge and Ry. Co.—A return ordered by the House of Commons shows that the Quebec Bridge and Ry. Co. has issued 2,637 shares, of which a large number are held by persons holding one share each. The names of those holding 50 shares or over are: M. P. Davis, 949; Hon. John Sharples, 500; H. A. Allan, 250; C. M. Hays, (in trust), 250; S. N. Parent, 80; H. M. Price, 52.

Quebec Central Ry.—After the annual meeting, which will be held in London, Eng., May 2, the holders of 4% debenture stock will hold a special meeting for the purpose of authorizing the directors to issue additional debenture stock or bonds, or both, authorized by the company's acts, provided that the total amount to be issued does not exceed $15,000 a mile of the present line and branches constructed or to be constructed.

Gross earnings for Feb., $61,478.84; net earnings, $19,255.66, against $47,899.98 gross and $9,499.93 net for Feb., 1904. Net earnings for two months ended Feb. 28, $37,481.24, against $16,822.61 for same period 1905.

Quebec and Lake St. John Ry.—The prior lien bondholders, at a meeting held in London, Eng., recently, authorized the issue of a further amount of £150,000, making a total issue of £500,000 of such bonds. This issue is for the completion of the La Tuque branch, the acquisition of new stock and the improvement of the line generally.

Reid Newfoundland Co.—A. B. Morine, St. John's, Nfld., has instituted an action against R. G. Reid to recover $62,500 for costs in connection with the following matters in which he acted as Mr. Reid's solicitor: The formation of the Reid Newfoundland Co., $5,000; as counsel before the Arbitration Court, 1902 (balance), $25,000; services in connection with W. G. Reid estate, $2,500; services as counsel before the Telegraph Arbitration Court, 1904, $30,000.

Temiscouata Ry.—At a meeting of certificates of first mortgage debentures held in London, Eng., recently the committee was given power to deal with any offers for the purchase of the line that might be made; and it was decided to exchange the present bonds of the railway for consolidated mortgage income bonds. The holders of the St. Francis branch bonds passed similar resolutions at a meeting subsequently held.

Traffic receipts for Mar. $16,043.87, against $13,249.02 for Mar., 1905.

Toronto, Hamilton and Buffalo Ry.—Earnings for Mar., $69,615.61, against $59,856.21 for Mar., 1905.

Railway Students at McGill University.

A circular issued by C. M. Hays, Second Vice-President and General Manager G.T.R., April 2, respecting the offer of free scholarships at McGill University, Montreal, by the company, sets forth that: Two free scholarships covering four years' tuition in the Faculty of Applied Science of McGill University, Montreal, are offered, subject to competitive examinations, to apprentices and other employes of the company under 21 years of age, and to minor sons of employes. The competitive examinations, which will be the regular entrance matriculation examination provided for in the annual calendar of the University, will be held under the supervision of the faculty of Applied Science at the University, beginning June 12. The two candidates making the highest average and complying with the requirements of admission will be awarded the scholarships and have the option of taking a course in any department of the Faculty of Applied Science. Scholarships will be renewed from year to year only upon the holders thereof passing, satisfactorily, the sessional and other examinations prescribed by the Faculty. In consideration of the free scholarships, students will be required to enter the service of the company as student apprentices, and serve during vacation periods while in attendance at the University, and at the option of the company, for two years after completing the college course. Successful candidates will, before entering the University, be required to execute the company's regular form of student apprentice contract, copies of which can be obtained upon application to R. S. Logan, Assistant to Second Vice-President, Montreal, to whom, also, applications for certificates entitling eligible persons to enter the competition should be addressed.

Canadian Northern Ry. Earnings, etc.

Gross earnings, working expenses, net profits, increases or decreases over 1904-05, from July 1, 1905:

	Earnings.	Expenses.	Net Earnings.	Increase or Decrease.
July..	$395,100	$ 252,600	$ 142,500	$ 51,400+
Aug..	357,900	246,200	111,700	12,200+
Sept..	378,500	268,300	110,200	14,000+
Oct..	557,100	298,900	258,200	113,600+
Nov.	566,800	341,700	225,100	68,700+
Dec.	437,800	295,600	142,200	7,100+
Jan.	359,900	260,600	99,300	10,800+
Feb.	301,400	217,900	83,500	23,300+
	$3,354,500	$1,705,900	$871,600	$301,100+

Approximate earnings for Mar., $441,600, against $273,100 for Mar., 1905. Total mileage in operation Mar. 1, 2,100 against 1,602 on Mar. 1, 1905.

C.P.R. Earnings, Expenses, etc.

Gross earnings, working expenses, net profits, increases or decreases over 1904, from July 1, 1905:—

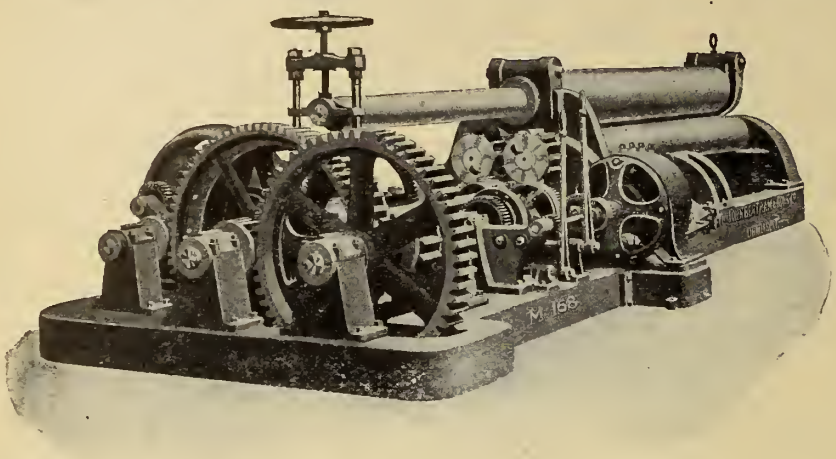
	Earnings.	Expenses.	Net Profits.	Increase or Decrease.
J'ly	$4,629,174.95	$2,991,397.29	$1,449,652.14	$188,125.52+
Aug.	4 796,733.98	3,005,088.07	1,791,645.91	263,715.48+
Sept.	4,872,575.38	3,086,565.35	1,776,010.05	507,202.49+
Oct.	5.722,767.30	3,448,696.12	2,274,071.18	707,957.27+
Nov.	5.741,543.12	3,380,232.13	2,316,310.99	691,736.25+
Dec.	5,619,182.83	3,272,599.52	2,346,583.31	683,914.48+
Jan.	4.422,690.96	3,155,456.94	1,267,234.02	844,565 55+
Feb.	4.224,451.76	3,018,707.98	1,205,743.78	903,572 46+
Mar.	5,093,286 24	3,248,621.74	1,844,664.50	661,837.46+
	$45,122,406.52	$28,617,365.12	$16,505,041.40	$5,452,626.96+

DULUTH, SOUTH SHORE AND ATLANTIC RY.—Gross earnings for Feb., $204,559.27; net earnings $40,491.03, against $188,422.40 gross and $45,635.30 net for Feb., 1905. Net earnings for eight months ended Feb. 28, $679,943.82 against $574,803.39 for same period 1904-05. Approximate earnings for Mar., $251,688 against $236,836 for Mar., 1905.

MINERAL RANGE RY.—Approximate earnings for Mar., $66,362, against $66,072 for Mar., 1905.

MINNEAPOLIS, ST. PAUL AND SAULT STE. MARIE RY.—Gross earnings for Feb., $764,745.35; net earnings, $322,409.08, against $523,872.75 gross and $179,063.93 net for Feb., 1905. Net earnings for eight months ended Feb. 28, $4,174,575.69 against $2,950,827.44 for same period 1904-05. Approximate earnings for Mar., $911,288 against $705,046 for Mar., 1905.

BERTRAM PLATE-BENDING ROLLS



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Grand Trunk Ry. Earnings, Expenses, etc.

The following statement of earnings, supplied from the Montreal office, includes the G.T. of Canada, Canada Atlantic Ry., the G.T. Western, and the Detroit, Grand Haven & Milwaukee Rys.

	1906.	1905.	Increase.	Decrease.
Jan	$2.896.439	$2,674,242	$222,197	....
Feb.....	2,602.274	2,268,252	334,022	....
Mar	3,268,011	3,047,060	220,951	....
	$8,766,724	$7,989,554	$777,170	....

The following figures relate to the individual lines, and are made out in sterling :

GRAND TRUNK RY. CO.

Revenue for Feb.:

	1906.	1905.	Increase.	Decrease.
Gross receipts....	£401,400	£350,600	£50 800	....
Working expenses	330,300	299,700	30,600	....
Net profit	£71,100	£50,900	£20,200	....

Aggregate from Jan. 1 to Feb. 28:

	1906.	1905.	Increase.	Decrease.
Gross receipts	£861,800	£762,600	£99,200	....
Working expenses	681,700	620,700	61,000	....
Net profit. ..	£180,100	£141,900	£38,200	....

CANADA ATLANTIC RY. CO.

Revenue for Feb.:

	1906.	1905.	Increase.	Decrease.
Gross receipts	£24,200	£21,500	£ 2,700	....
Working expenses	22,200	20,500	1,700	....
Net profits	£ 2,000	£ 1,000	£ 1,000	....

Aggregate from Jan. 1 to Feb. 28:

	1906.	1905.	Increase.	Decrease.
Gross receipts	£48,500	£45,700	£ 2,800	....
Working expenses	45,600	42,900	2,700	....
Net profit.....	£ 2,900	£ 2,800	£ 100	....

GRAND TRUNK WESTERN RY. CO.

Revenue for Feb.:

	1906.	1905.	Increase.	Decrease.
Gross receipts....	£83,000	£75,200	£ 7,800	....
Working expenses	75,300	70,400	£ 4,900	....
Net profit.....	£ 7,700	£ 4,800	£ 2,900	....

Aggregate from Jan. 1 to Feb. 28:

	1905.	1904.	Increase.	Decrease.
Gross receipts ...	£168,200	£162,200	£ 6,000	....
Working expenses	152,200	147,800	4,400	....
Net profit....	£ 16,000	£ 14.400	£ 1,600	....

DETROIT, GRAND HAVEN & MILWAUKEE RY. CO.

Revenue for Feb.:

	1906.	1905.	Increase.	Decrease.
Gross receipts....	£ 26,000	£ 18,700	£ 7,300	...
Working expenses	21,900	17,200	4.700	....
Net profit	£ 4,100	£ 1,500	£2,600	....

Aggregate from Jan. 1 to Feb. 28:

	1906.	1905.	Increase.	Decrease.
Gross Receipts. ...	£51.100	£44,800	£6,300	....
Working Expenses	41,100	35,200	5.900	....
	£10,000	£9.600	£400	....

TRAFFIC RECEIPTS OF THE SYSTEM.

Aggregate from Jan. 1 to Feb. 28:

	1906.	1905.	Increase.	Decrease.
Grand Trunk..	£1,371,434	£1,227,067	£144,367	..
Canada Atlantic	80 901	73,617	7,284	
G. T. Western	267,123	268,339	....	£1,216
D. G. H. & M.	81,926	72,669	9,257	....
Total.....	£1,801,384	£1,641.692	£159.692	....

TRADE AND SUPPLY NOTES.

The matter which appears under this heading is compiled, in most cases, from information supplied by the manufacturers of, or dealers in, the articles referred to, and in publishing the same we accept no responsibility. At the same time we wish our readers to distinctly understand that we are not paid for the publication of any of this matter, and that we will not consider any proposition to insert reading matter in our columns for pay or its equivalent. Advertising contracts will not be taken with any condition that accepting them will oblige us to publish reading notices. In other words, our reading columns are not for sale, either to advertisers or others.

The Marconi-Wireless Telegraph Co. has placed an order with the Robb Engineering Co., Amherst, N.S., for two 150 h.p. boilers for its station near Glace Bay, N.S.

B. J. Coghlin & Co., Montreal, have issued a catalogue of crowbars of various kinds, track wrenches, tamping bars, rail tongs, track gauges, etc., which they manufacture.

The Robb Engineering Co., Amherst, N.S., has received an order through E. A. Wallberg, of Montreal, for two 200 h.p. Robb-Mumford boilers for the I.C.R. new round house at Truro, N.S.

The Canadian Westinghouse Co., Hamilton, Ont., has issued booklets, etc., describing its fan motors, direct current ceiling type fans, direct current multiple arc lamps and small power motors.

Steam Shovel News, issued by the Vulcan Iron Works, Toledo, Ohio, contains some interesting information about the construction of the new canal between Lake Erie and the seaboard, through the State of New York.

The Alberta Ry. and Irrigation Co., Lethbridge, Alta., has ordered two 175 h.p. Robb-Mumford boilers from the Robb Engineering Co., Amherst, N.S. When these are installed, this company will have nine of these boilers in use.

The Canadian Westinghouse Company is furnishing the T. Eaton Company, Toronto, a 300 k.w. direct current, 550 volt, engine type generator, to be used as part of its present large power plant, which is considered one of the most up-to-date direct current plants in Canada, and is equipped throughout with Westinghouse apparatus.

The annual report submitted to the shareholders of the Canadian Westinghouse Co., at Hamilton, Ont., showed that the past year had been a prosperous one. After paying a dividend of 6%, there remained a balance of $232,041.35 to be carried forward. Application is being made to have the capital increased from $2,500,000 to $5,000,000. Following are the officers and directors for the current year: President, G. Westinghouse; Vice-President, H. H. Westinghouse; Vice-President and General Manager, P. J. Myler; Secretary, J. H. Kerr; other directors: L. A. Osborne, G. C. Smith, T. Ahearn, W. Y. Soper, C. F. Sise, J. M. Gibson, K.C.

C.P.R. Betterments, Construction, Etc.

Eastern Lines Generally.—During the current year a quantity of 80-lb. rails will be laid on the various divisions, replacing lighter rails; a number of bridges will be renewed, strengthened or filled and a large amount of ballasting, fencing and ditching will be done.

Eastern Division.—The more important works to be carried out during the year on this division include the following: The double track which now extends to Ste. Annes will be extended to Vaudreuil, Que., necessitating the rebuilding of the large bridges over the Ottawa River at Ste. Annes and Vaudreuil and a smaller bridge between those points. The bridges between Vaudreuil, Que., and Smith's Falls, Ont., will be rebuilt and made suitable for double track. At Montreal the extensive terminal enlargements in progress last year will be continued. The New Glen yard roundhouse, storage tracks, etc., will be occupied in May, and the new branch alongside the south side of the Lachine Canal from Highlands will be completed. To accommodate the additional clerical staff, consequent upon the increase in traffic, another story will be added to the recently built Osborne St. extension of the Windsor St. station.

St. Phillippe Northerly.—A contract has been entered into with the Dominion Government for the construction of a line of about three miles extending from St. Phillippe d'Argenteuil station, or between there and Grenville, Que., northerly.

Ontario Division.—The construction of the branch lines and extensions now in progress in Western Ontario is being actively proceeded with, and to accommodate the additional rolling stock which will be required for the operation of these lines, and to handle the rapidly increasing business, the roundhouse and repair shops at Toronto Junction and John St., Toronto, will be enlarged. The car ferry now being built at Detroit, Mich., to transport coal for the company from Ashtabula, Ohio, to Port Burwell, Ont., will be completed and in service early in the season. In connection with this, heavy expenditures will be made for additional terminal facilities at Port Burwell, and the Port Burwell-Tillsonburg branch will be brought up to the C.P.R. standard.

Improvements at Lambton.—Track has been laid on the new piece of line between Lambton station and the Humber River, which was graded in 1905. The new piece of line crosses Lambton Park and cuts out the big curve near the Lambton golf grounds, at which point the Toronto-Niagara Power transmission wires cross the line.

Toronto-Sudbury Line.—A contract has been let to the Ross & Harris Co., Limited, Montreal, for the construction of 40 miles of line between Parry Sound and Byng Inlet, Ont. This section will complete the line from Bolton, on the Toronto, Grey and Bruce branch, to Romford, on the transcontinental line of the C.P.R., connecting the section under construction from Bolton with that being constructed southerly from Romford. The contract covers everything in connection with a completed railway. The headquarters of the contractors for the present will be at Parry Sound, Ont. They will sublet all the work except tracklaying and ballasting. The company's engineer locally in charge of the work is F. G. Mackie.

Lake Superior Division.—Owing to the increasing number of trains handled by the heavy locomotives now being placed in service, a number of additional crossing sidings will be put in on this division, and others extended. A large additional yard will be installed at Sudbury, Ont., to accommodate the trains of the new Toronto-Sudbury line, and take care of increasing business. A brick station is also in course of erection. An enlargement will also be made of the yard at Webbwood, Ont., to accommodate the increasing business of the Sault Ste. Marie branch.

Western Lines Generally.—In addition to special works mentioned under the several divisions, the appropriations for the current year's betterments provide for a large amount of work to be done in the repair of locomotive houses; the erection of a number of 40,000 gal. water tanks; the erection of a number of no. 5 stations; alterations and additions to coaling plants; the provision of better water supply and purifying plants for treating water at a number of points; enlarging old buildings and constructing new stock yards, etc., and the fencing of 369 miles of line. There will also be a considerable amount of bridge filling, and ballasting done, and a number of steel bridges will be erected replacing lighter steel or wooden structures.

Central Division.—The betterments which it is proposed to carry out during the current year include the enlargement and extension of the coal shed, and freight shed at Fort William, Ont.; the completion of the hotel at Winnipeg; putting in 903,000 new ties, and laying 80 miles of second track with 80-lb. steel; and the construction of overhead bridges at West Fort William (footbridge) and Kenora (general traffic bridge).

Western Division.—During the current season 472,000 new ties will be put in the lines on this division, and 104 miles of 80-lb. steel will be laid, replacing lighter rails. The other works to be undertaken include the provision of terminal facilities at Emerson, Broadview, and Souris, Man.; Red Deer, Sask.; Lethbridge, Alta.; yard alterations

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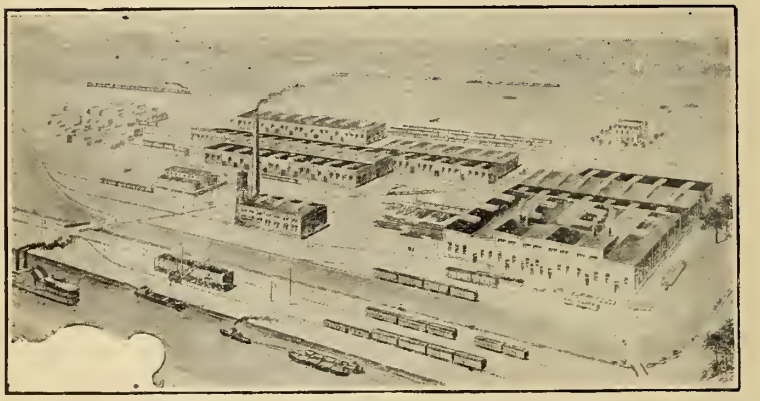

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at Portage La Prairie, Man.; Medicine Hat, Sask.; Calgary, Alta.; new station and dining hall at Swift Current, Sask.; a six-stall addition to roundhouse at Medicine Hat, and a 30 foot extension to the boiler-house at Calgary.

Calgary and Edmonton Ry.—The Dominion Parliament will be asked at its current session for an act authorizing an extension of the Lacombe branch from its present authorized terminal at 100 miles east of Lacombe, to a point in range 27 or 28, west of the third meridian, between townships 35 and 42.

Western Lines Bridgework.—The steel bridge work provided for in the appropriations for the current year includes a number of small spans, and the following of 100 ft. or over: 100 ft. through lattice span at mileage 28.6, Nakusp and Slocan branch; 150 ft. deck lattice span at mileage 51.9, Laggan section; three 150 ft. through lattice spans at mileage 53.1, Laggan section; four 130 ft. through lattice truss spans, one 125 ft. through lattice truss span, one 80 ft. deck plate girder, and one 200 ft. through swing span at mileage 199.8, Cascade section.

New Tunnel near Palliser, B.C.—When the line was first built a tunnel, known as Mud Tunnel, was made through a high clay bluff, which projected out into the Kicking Horse River, which made a sharp bend at this point. This tunnel was lined with heavy timbers, but signs of crushing soon manifested themselves, and the timbers began to split and break. It was soon evident that the tunnel would have to be abandoned, and in 1887 a line was accordingly graded around the bluff along the edge of the river, it being necessary to use a very sharp curve—22°—having a radius of 260 ft., and turning around a total angle of 180°. Shortly after the new line was graded the tunnel completely crushed in, and the sharp curve has been successfully operated ever since. In the autumn of 1905 it was decided to build a new tunnel a little further into the hill than the site of the old tunnel, and a contract was accordingly let to O. Olson, an experienced contractor, who had previously made a success of difficult tunnel work. The new tunnel will be 690 ft. long, and is built according to the latest Government requirements, having a height of 22 ft. 6 in. above the rail. It is lined throughout with concrete 3 ft. thick, strengthened by Kahn steel bars. The work is now about half completed, and should be finished during the coming summer.

Pacific Division.—The appropriations for the current year provide for the putting in of 357,000 new ties, and the laying of 76.71 miles of 80-lb. steel rails; the provision of terminal facilities at Crow's Nest; yard alterations and extensions at Revelstoke and Vancouver; the erection of a new station at Fernie, B.C ; a new freight shed at Victoria; and the completion of the hotel there. There will also be considerable alterations and improvements at the company's hotels in the mountains at Field, Glacier, Banff, Lake Louise, Laggan, Sicamous, Emerald Lake, and North Bend, B.C.

The Board of Railway Commissioners spent some days in Toronto recently, commencing their sittings April 18. There were 30 applications on the list to be dealt with, but some delay was experienced in getting the parties interested present. An agreement was reached between the C.P.R. and the city of Toronto in reference to a question of land. An important question dealt with was that affecting the carrying of the Toronto and Niagara Power Co.'s lines across the G.T.R. at six points between Toronto and Niagara Falls, in regard to which an agreement was also effected.

MAINLY ABOUT PEOPLE.

Mrs. Ryan, widow of the late John Ryan, contractor, died in Toronto, April 24.

Sir Wm. Van Horne, Chairman of the Board, C.P.R., returned to Montreal from England, April 11.

E. E. Delaney, general agent Freight Department, Northern Pacific Ry. at Buffalo, N.Y., died there from pneumonia, April 7.

Jos. Stovel, who died at Winnipeg, Man., April 7, aged 78, was father of C. R. Stovel, Canadian Northern Ry. Right of Way Agent.

G. Swain, who was conductor on the Royal train in 1862, when the King visited Canada, celebrated his 80th birthday at Winnipeg, Man., Mar. 28.

E. A. James, Manager Canadian Northern Ry., returned to Winnipeg, Man., from Los Angeles, Cal., early in April, very much improved in health.

T. Harvey, C.P.R. city ticket agent at Sault Ste. Marie, Mich., was drowned near Thunder Bay light, Lake Huron, by falling overboard from the str. Goodyear, April 23.

John Bertram, founder and head of the firm of The John Bertram Sons Co., Ltd., Dundas, Ont., died somewhat suddenly at his residence there, April 12, aged 77.

J. N. Brooks was presented with a dress suit case by the Winnipeg office staff, on leaving to take up his new duties as C.P.R. claims agent, Calgary, Alta., Mar. 27.

W. Hendrie, railway contractor, and President of the Hendrie Co., cartage contractors G.T.R., Hamilton, Ont., has been made an honorary member of the English Jockey Club.

J. P. Rogers, formerly Superintendent, White Pass and Yukon Route, Skagway, Alaska, was presented with a gold watch by the employes of the company on leaving the service.

Sir T. G. Shaughnessy, President C.P.R., who was on board the Empress of Britain on her trial trip round Ireland, will be a passenger on her initial trip from Liverpool to Quebec.

S. McGarvah, who was Superintendent of Bridges, Southern Division G.T.R., until his resignation about three years ago, owing to ill-health, died at Windsor, Ont., April 17, aged 68.

P. G. Freeman, Chief Engineer of the Halifax Electric Tramway Co., read a paper on the company's plant at the recent meeting of the Mining Society of Nova Scotia, Halifax, N.S.

The Montreal Star, on April 2, published a portrait of W. Wainwright, Comptroller and General Assistant, G.T.R., as a captain in the G.T.R. Rifle Brigade, from its issue of April 2, 1876.

Major Jas. Tattersall, who committed suicide by shooting himself with a revolver at Niagara Falls, Ont., Mar. 27, was an official of the Great Western Ry., and its successor the G.T.R.

Capt. C. R. Kingsmill, who has been appointed to the command of H.M. battleship Dominion, is a nephew of N. Kingsmill, Toronto, director Canada Southern Ry. and associated lines.

W. W. Pope, who was managing clerk to the late John Bell, G.T.R. solicitor, has been granted permission to practise law on passing an examination to be set by the Law Society of Ontario.

G. H. Pick, weighing inspector, I.C.R., completed his 42nd year in railway service, April 5, having started as freight checker with the European and North American Ry. at St. John, N.B., 1864.

H. G. Coykendall, railway contractor, who died in the Rochester, Minn., hospital, recently, aged 66, at one time resided in Winnipeg, Man., and was engaged in construction work on the C.P.R.

F. R. Clarke, who died at Montreal, April 14, aged 68, had been for about 50 years in the service of the G.T.R., and for many years had been chief clerk in the Mechanical Superintendent's Department.

W. H. Taylor, who has been appointed manager Royal Alexandra Hotel, Winnipeg, Man., arrived there from England, April 4, and entered upon his duties in connection with the fitting out of the building.

The engagement is announced of Miss Marjorie Baker, daughter of the Assistant to the President of the C.P.R., to Howard, son of Jno. Turnbull, agent for Lord Mountstephen, and financial agent, Montreal.

A. Cameron, General Traffic Agent, C.P.R., London, Eng., was present at a dinner given by the Canada Club in London, recently, to the Canadians who have been elected to seats in the British House of Commons.

Capt. A. Clark was killed by the explosion of an acetylene gas buoy near Parry Sound, Ont., April 23. The tug Pilot, which was engaged in the service of recharging the buoys, was so badly injured that she sank, the crew escaping.

W. E. Fowler, Master Car Builder, C.P.R., returned to his office at Montreal, April 3, after having been absent for some weeks. During his absence he underwent an operation in Detroit, Mich., from the effects of which he has recovered.

R. H. Bell, Travelling Freight and Passenger Agent Canadian Northern Ry., was given a suit case by his Montreal colleagues, on moving from that city to Pittsburg, Pa., where he will in future represent the company as Commercial Agent.

A. E. Jones, of Buffalo, N.Y., who was private secretary to F. W. Cumberland, managing director of the Northern Ry. of Canada, at Toronto, in the early seventies, has been elected an honorary member of St. George's Society, of London, Eng.

B. W. Chipman, President Nova Scotia Telephone Co., died at Halifax, N.S., April 24, aged 70. He was father of H. L. Chipman, Manager of the Canada Atlantic and Plant Steamship Co., and of J. D. Chipman, C.P.R. city passenger agent, Halifax, N.S.

Major D. MacInnes has been retained as Deputy-Assistant Quartermaster-General at Halifax, N.S., by the Dominion Government, to which position he was originally appointed by the Imperial Government. He is a brother of W. R. MacInnes, Freight Traffic Manager, C.P.R., Montreal.

A. L. Hertzberg, C.P.R. Engineer of Maintenance of Way, Montreal, was the principal guest at a dinner in Toronto, April 21. Those present included nearly all the C.P.R. officials who had been associated with Mr. Hertzburg during the years he had been Division Engineer at Toronto.

M. H. McLeod, Chief Engineer Canadian Northern Ry., was presented with a scarf pin composed of the initials of Prince Arthur of Connaught, surmounted with the royal crown in gold and enamel, as a souvenir of the recent royal trip over the line. Mr. McLeod accompanied the royal party in the special train.

A telegram received in Brantford, Ont., April 25, from Seattle, Wash., stated that Dr. S. Ritter Ickes had died there suddenly. He was until recently in control of the Brantford St. Ry., the Woodstock, Thames Valley and Ingersoll Ry., and the Grand Valley Electric Ry. His widow and two children are in Brantford.

Mrs. Thos. Tait, wife of the Chairman of the Victorian State Railway Commission, the industrial development of the country.

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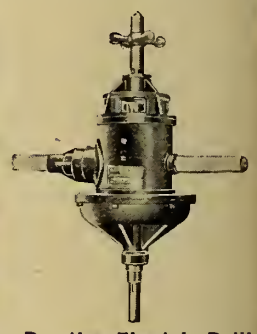

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with her daughter, Miss Winnifred, sailed from Melbourne, April 16, for Vancouver, B.C. They will travel from thence to Toronto, where they will visit Mrs. Tait's parents, G. R. R. and Mrs. Cockburn, and will subsequently go to Great Britain.

P. F. McCabe, station agent at Bolton Mills, Vt., who was arrested in Montreal, was removed to St. Albans, Vt., April 8, to answer a charge of wrecking the New England express, Feb. 6, by leaving a switch open on a siding, and a charge of perjury in connection with the investigation before the Central Vermont Railway Commission.

The partnership as insurance agents, heretofore carried on in Toronto by Arthur White, ex-Division Freight Agent of the G.T.R., and J. Earls, ex-Secretary of the Canadian Freight Association, has been dissolved by mutual consent. Mr. Earls has been appointed special agent of the Phœnix Assurance Co., and of the London & Lancashire Life Assurance Co.

K. Sutherland, who died at Kentville, N.S., Mar. 27, aged 72, as a member of the firm of Sutherland & Sons, had to do with the construction of the Intercolonial Ry. between Halifax and Truro, N.S.; subsequently he became associated with the Windsor and Annapolis Ry., and was Manager for some years. He has been living in retirement for a number of years.

J. H. Barber, who has been appointed Division Engineer, C.P.R., Montreal, was born in Hamilton tp., near Cobourg, Ont., Dec. 20, 1856, and was educated in Toronto. He was an articled pupil of James Ross, C.E., 1875 to 1878, and was engaged as Assistant Engineer and Division Engineer on various sections of location and construction on the C.P.R., up to 1891. In the fall of that year he entered the maintenance of way department as Resident Engineer at Toronto, and was transferred to St. John, N.B., as Division Engineer, Atlantic Division, which position he held until his present appointment.

C. E. McPherson, General Passenger Agent C.P.R. Western Lines, Winnipeg, Man., was married at St. John's, N.B., April 11, to Miss J. S. Troop. A number of presentations were made to Mr. McPherson in connection with the event, including a case of silver from the C.P.R. staffs on the Western Lines; a cut glass pitcher and glasses from the staff of the general passenger office, Winnipeg; a bronze ornament from the ticket staff at Winnipeg; a cut glass salad bowl and servers from the company's Toronto passenger staff, and a silver service from a number of personal friends in Winnipeg.

M. A. Overend, who has been appointed Western Freight Agent, Dominion Steamship Line, Portland service, at Toronto, was born in England and came to Canada in 1872, entering the service of the Great Western Ry., Hamilton, Ont., in the mechanical department, and continuing until the absorption of that road by the G.T.R. in 1884, since which time his record has been as follows: Oct., 1884, to June, 1885, clerk in G.F.A. office, Hamilton; June ,1885, to June, 1892, clerk in D.G.F.A. office, Toronto; June, 1892, to Nov., 1893, clerk in same office, Toronto; Nov., 1893, to May, 1895, Ontario Agent Canada Atlantic Fast Freight Line, Toronto; May, 1895, to Sept., 1896, city freight agent, G.T.R., Toronto; Sept., 1896, to April, 1898, Ontario Agent C.A.F.F. Line; April, 1898, to Oct., 1905, Foreign Freight Agent, Canada Atlantic Ry., Montreal; Oct., 1905, to April, 1906, with a private firm.

Frederic Nicholls, whose portrait appears on the first page of this issue, was born in England, Nov. 23, 1856, and was educated at Stuttgart, Wurtemberg, Germany. He came to Canada in 1874, and has been actively associated with the promotion of He was one of the original promoters of the Toronto Incandescent Electric Light Co., which undertook to light Toronto by electricity distributed by underground conduits. For a number of years he was Secretary of the Canadian Manufacturers' Association, and was connected with journalism, becoming Vice-President of the Toronto Press Club in 1890. He was actively connected with the organization of the Canadian General Electric Co., the factories of which are at Peterborough, Ont., and within the last few years has been the moving spirit in the formation of the Canada Foundry Co., and the Canadian Shipbuilding Co., Toronto. He is also associated with the Electrical Development Co. of Canada, which is developing the hydro-electric power plant at Niagara Falls, and the associated companies for the distribution of the power throughout Western Ontario, and the construction of electric railways. In addition to being a director of the Canadian Northern Ry., he is associated as President, Vice-President or director with the Toronto Ry., Niagara, St. Catharines and Toronto Ry., Toronto and Hamilton Ry., Canadian Lakes and Ocean Navigation Co., Niagara, St. Catharines and Toronto Navigation Co., as well as a number of financial and industrial corporations.

A notice has been issued by D. Pottinger, General Manager Intercolonial Ry., stating that the Minister of Railways has decided that it is not in the interest of the railway that the employes should become candidates for municipal offices.

The Ontario Government has reaffirmed its decision not to grant licenses to hotels erected in Algonquin Park. This application was made by the G.T.R., which proposes to erect one or more tourist hotels in this Provincial park.

The Intercolonial Ry. will put its Ocean Limited train in service about June 28, between Montreal, St. John, N.B., and Halifax, N.S., to continue until September. It is expected the time will be about the same as last year, leaving Montreal at 7.30 p.m., and Halifax at 8 a.m.

Replying to a question in the House of Commons, April 3, the Premier said there was no truth in the rumor that the G.T. Pacific Ry. had applied to the Government to reduce the Chinese poll tax from $500 to $50 in order that Chinese labor might be imported to assist in the work of constructing the line.

A bill is being discussed by the Imperial Parliament the object of which is to amend the Merchants Shipping Acts in such a way as to place foreign vessels using British ports on the same footing as British vessels in regard to inspection, overloading, the provision of life-saving appliances, the control of emigration and passenger traffic, etc.

The arbitrators selected in the dispute regarding wages between the G.T.R. and its engineers are: Wallace Nesbitt, Toronto, representing the company; P. H. Morrissey, Cleveland, Ohio, an official of the Brotherhood of Locomotive Engineers, representing the men, and the third arbitrator is J. F. Wallace, of New York, formerly Chief Engineer of the Panama Canal.

The Ontario Railway bill, as introduced by Hon. J. S. Hendrie, has been discussed at considerable length at a meeting of the Government and representatives of the municipalities, and the points of difference are under the consideration of the Government. The Premier announced after the meeting that it was probable that considerable changes would be made in the bill, but he was not in a position to state just exactly what they would be. The nature or extent of the changes have not yet been laid before the Legislature.

TRANSPORTATION APPOINTMENTS.

Canadian Pacific Ry.—R. F. Struthers, in addition to his duties as Chief Inspector of Time Service, will act as Chief Examiner for Vision, Color-sense and Hearing Tests, Western Lines. He will report to the Superintendent of Transportation, sending copies of his reports to the respective Superintendents for action.

J. E. Proctor, heretofore City Ticket Agent Nelson, B.C., is reported to have been appointed Travelling Passenger Agent Western Division. Headquarters, Calgary, Alta.

E. V. Dangerfield, heretofore baggage master New Westminster, B.C., has been appointed Travelling Baggage Agent Western Lines. He will report to the Assistant General Baggage Agent at Winnipeg. Office, Calgary, Alta.

A. Hatton, heretofore Chief Train Dispatcher at Fort William, Ont., has been appointed Chief Train Dispatcher, 2nd district, Central Division, at Cranbrook, B.C. C. E. Marsfield, who has been acting Chief Train Dispatcher, has returned to his position as trick dispatcher.

F. W. Sterling has been appointed chief clerk to General Freight Agent Pacific Division, Vancouver, vice J. Halstead, promoted.

In connection with the reorganization of the freight and passenger departments of the C.P.R. and its U.S. subsidiaries—the Duluth, South Shore and Atlantic Ry., and the Minneapolis, St. Paul and Sault Ste. Marie Ry.,—in Buffalo, N.Y., referred to in our last issue, the title of R. A. Burford is City Passenger Agent, and that of W. S. Nevins is City Freight Agent.

T. G. Orr has been appointed Travelling Passenger Agent, with headquarters at Pittsburg, Pa.

J. W. Draper has been appointed General Agent Freight and Passenger Departments at Seattle, Wash.

J. Halstead, heretofore chief clerk to General Freight Agent Pacific Division, Vancouver, has been appointed Agent Freight and Passenger Departments at Tacoma, Wash., vice J. W. Draper, promoted.

Canadian Northern Ry.—F. A. Shaw, heretofore contracting freight agent, has been appointed City Freight Agent at Montreal.

H. Logan, heretofore soliciting freight agent Lehigh Valley Rd., has been appointed Travelling Freight Agent C.N.R. Headquarters, Toronto.

G. L. Fairhead, heretofore Contracting Freight Agent, has been appointed City Freight Agent, Toronto.

R. H. Bell, heretofore Travelling Freight and Passenger Agent at Montreal, has been appointed Commercial Agent at Pittsburg, Pa.

The following changes have been made in the dispatching staffs: F. T. Peebles, heretofore at Port Arthur, Ont., has been transferred to Dauphin, Man.; W. I. Munro, heretofore at Winnipeg, has been transferred to Dauphin; W. Inglis, heretofore at Dauphin, has been transferred to Battleford, Sask. The names of T. Davis, Dauphin, and W. Kirkpatrick, Battleford, do not now appear on the list of dispatchers.

Department of Railways and Canals.—W. A. Bowden, heretofore connected with the Locomotive and Machine Co. of Montreal, has been appointed Designing Engineer of the Department. His duties will include the work in connection with the new shops for the Intercolonial Ry. at Moncton, N.B.

Grand Trunk Ry.—W. R. Vair, heretofore clerk in the station ticket office Detroit, Mich., has been appointed ticket agent there, succeeding H. M. Morgan, promoted.

Walter White having been assigned to other duties, the position of assistant trainmaster, districts 22, 23 and 24, with office at Palmerston, Ont., has been abolished.

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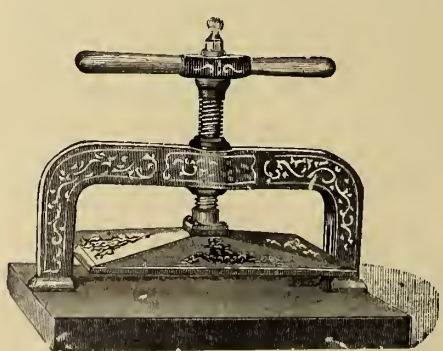

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Walter White, heretofore assistant-trainmaster at Palmerston, Ont., has been appointed agent at Black Rock, N.Y., succeeding J. J. Beck, appointed superintendent Toronto Union Station.

The following Agents have been appointed: Richmond, Que., W. Harrison; Whites, Que., J. L. O'Colomb; Brockville, pass., Ont., W. J. Gillerlain; Goodwood, Ont., T. A. Weir; Unionville, Ont., C. H. Flumerfelt; Thornhill, Ont., W. I. Wilson; King, Ont., W. J. Buchanan; Emsdale, Ont., V. McIlhargey; Callander, Ont., C. L. Bowles; Huntsville, Ont., P. Meyer; Stayner, Ont., T. Kennedy; Bronte, Ont., C. E. Diltz; Clarkson's, Ont., L. G. Hord; Dorchester, Ont., W. E. Cusson; Eastwood, Ont., D. C. Anderson; Hyde Park, Ont., G. H. Barnes; Welland, Ont., W. R. White; Britton, Ont., J. Wadge; Hawkesbury, Ont., H. B. Patridge; Maxville, Ont., W. H. Harris; Pembroke, Ont., J. R. Pilson; Kinburn, Ont., W. A. Ellis.

Great Northern Ry. (U.S.)—R. W. Bryan, heretofore Superintendent at Melrose, Minn., has been appointed Master of Transportation, a new office. Office, St. Paul, Minn.

F. Bell, heretofore Superintendent of Car Service, has been appointed Superintendent at Melrose, succeeding R. W. Bryan.

Intercolonial Ry.—The circular appointing E. A. Williams Special Agent was issued April 6. Policemen, constables and watchmen are directed to report to him direct, and to continue to report, at as present, to local and other officers.

The following changes in the dispatching staffs at Moncton and Newcastle, N.B., were announced in the local papers April 17: W. P. Hutchinson, of Moncton, has been transferred to Newcastle; T. A. Scribner, of Newcastle, has been moved to Moncton to relieve P. M. McMahon, who has been transferred to the yard office there.

J. J. McConniff, at one time in the union ticket office, Windsor Hotel, Montreal, has been appointed city passenger and ticket agent, I.C.R. and Prince Edward Island Ry., Montreal, succeeding J. W. Bryson. The ticket office will be located at 141, instead of 143 St. James St., after May 1.

Montreal and Lake Superior Line.—F. Lumsden has been appointed agent at Port Arthur.

New York Central and Hudson River Rd.—F. E. Williamson has been appointed Car Accountant, and will have charge of the car records, car service, mileage and per diem accounts. Correspondents and reports relating to these matters should hereafter be addressed to the Car Accountant. Offices, Grand Central Station, New York.

Toronto Union Station.—Jas. Walch, who was appointed general baggage agent and took over the duties April 1, resigned a few days later, and returned to his former position as G.T.R. baggage agent, Windsor, Ont.

White Pass and Yukon Route.—H. J. Hutchinson is reported to have been appointed Superintendent Engineer of the company's steamers, succeeding A. G. Sproat, deceased. Headquarters, Whitehorse, Yukon.

The Royal Alexandra is the name selected by the C.P.R. for its new hotel at Winnipeg, Man., which it is expected will be opened for business early in June.

H. D. Lumsden, President Canadian Society Civil Engineers, and Chief Engineer National Transcontinental Ry. Commission, headed a deputation of engineers, including Professor McLeod, McGill University, and G. C. Mountain, Chief Engineer Board of Railway Commissioners, which waited upon the Premier at Ottawa, April 6, to urge that the Government should authorize the carrying out of a geodetic survey of the Dominion.

National Transcontinental Railway.

The Commissioners had the tenders submitted by various contractors for the two portions of the Eastern Division examined by their engineers, and made a report thereon to the Government, April 3. The matter was discussed on several occasions, and a decision was reached April 12, when it was announced that tenders had been accepted as follows:

DISTRICT B.—From the north end of the Quebec Bridge and Ry. Co.'s bridge, Quebec, to near La Tuque, Que., about 150 miles; Hogan and Macdonnell, Montreal.

DISTRICT F.—From Winnipeg, Man., to Peninsula Crossing, Ont., near the junction point of the Fort William branch of the G.T. Pacific Ry., about 245 miles; J. D. MacArthur, Winnipeg, Man.

BRIDGE AT CAP ROUGE.—A steel viaduct of about 3,000 ft. long near Cap Rouge, Que., in District B, to be constructed in accordance with the general specifications of the Commissioners, and of the Department of Railways, Dominion Bridge Co., Montreal, at an approximate cost of $320,000.

The length of time taken in awarding the contracts was due, apparently, to a difference of opinion between the Commissioners as to which tenders should be accepted. The majority of the Commissioners were of opinion that the contracts should go to the lowest tenderers, but the Chairman thought that these were too low, as they were considerably below the estimated cost as figured out by the Chief Engineer and his staff, and recommended the acceptance for the two divisions of the tenders of the G.T. Pacific Ry. Co. This view was over-ruled by the Government and the lowest tenders accepted. The amount at which the different tenders work out are:

DISTRICT B—	
Hogan and Macdonald (accepted)	$ 5,296,000
O'Brien and Mullarkey	5,550,000
G.T. Pacific Ry. Co.	6,459,000
M. P. and J. T. Davis	6,667,000
M. Connolly, Desjardins & Wilson	7,081,000
McArthur Construction Co.	7,940,000
DISTRICT F—	
J. D. MacArthur	$13,010,000
Pacific Construction Co.	13,028,000
G.T. Pacific Ry. Co.	13,991,000
McArthur Construction Co.	17,048,000
STEEL VIADUCT—	
Dominion Bridge Co. (No. 2) accepted	$ 318,000
Dominion Bridge Co (No. 1)	329,000
Locomotive and Machine Co. of Montreal	331,000
Canadian Bridge Co.	343,000
G.T. Pacific Ry. Co.	347,000
Phœnix Bridge Co.	348,000

The contracts cover the grading and all other work, except the steel rails and ties, which are to be supplied by the Commissioners, and for the completion of the work by Oct. 1, 1907. Tenders for about 50,000 tons of 80-lb. steel rails, and 2,500 tons of angle irons, etc., will shortly be asked for by the Commissioners for these sections of the line, for delivery this season. As the contractors have to purchase their materials and supplies as far as possible in Canada, it is expected that the order for the steel rails, etc., will be placed in Canada if the mills can supply them at the time they will be required.

In connection with the Winnipeg-Peninsula Crossing section of the work, it has been announced in Winnipeg that work will be started at four points—five miles east of Winnipeg, the second at Molson, the third north of Kenora on the Winnipeg River, and the fourth north of Dinorwic—immediately, and at other points which can be reached from the C.P.R. line, as speedily as they can be arranged for. Work at the Quebec end will also be started at once.

A return presented to the House of Commons, April 6, contained a report from H. D. Lumsden, Chief Engineer of the Commission, in reference to the two routes suggested for the line through New Brunswick. Mr. Lumsden recommends the adoption of what is known as the back route, which is about 28 miles shorter, and will cost about $1,500,000 less to construct than what is known as the river route. The back route opens up a country well adapted for settlement and at present without transportation facilities, while there are lines of railway tapping and traversing the valley of the St. John River, through which the river route has been surveyed.

GRAND TRUNK PACIFIC RAILWAY.

In a report to the Minister of Railways, C. Schrieber, Consulting Engineer to the Department, reviews the progress made in survey work and construction on the line west of Winnipeg, Man. The route between Winnipeg and Portage la Prairie, 58 miles, had been approved and location surveys were in progress. Of the line under contract between Portage la Prairie and the Touchwood Hills, 275 miles, the contractors had graded 55 miles, and put in a number of culverts. The line from Touchwood Hills to Edmonton, Alta., 490 miles, was under contract, but the Government had withheld approval of the plans for the last 45 miles. The reason for this was that it showed a line crossing the Saskatchewan River at Clover Hill bar, 12 miles east of Edmonton, while the Government desired, if possible, to have a line through Strathcona, crossing the Saskatchewan at that point, and so into Edmonton. Further surveys were being made to ascertain if a sufficiently favorable line could be obtained to allow of this change to be made. Preliminary surveys had been made from Edmonton to the end of the prairie section, but no route map had been submitted for approval pending a decision as to what pass through the Rocky Mountains would be adopted. Exploration had been made of several passes, but sufficient data had not been obtained to enable a decision to be reached.

So far as the portions of the lines under contract are concerned, the McDonald-McMillan Co. have got a number of gangs of men at work between Portage la Prairie and the Touchwood Hills. The Canadian White Co. have got their outfit on their contract between the Touchwood Hills to west of Saskatoon, Sask., and active work was expected to be started by the end of April. On the section from Saskatoon to Edmonton, contractors Foley Bros., Larson & Co., 29 cars of grading outfit were on the way to Saskatoon April 25, from which point it is proposed to start grading westerly. Superintendent of Construction Fetters stated that there would be 1,000 teams at work by the end of April, and by the end of May it was hoped to have 3,000 teams and 5,000 men on the line. As soon as the work from Saskatoon to Battle River was got in hand, the section between Battle River and Edmonton would be started, operations being gone on with from the Edmonton end. The Saskatoon-Battleford River section, about 200 miles, comprises some heavy work, particularly in the Eagle Hills country, almost due south of Battleford. There will be one large steel bridge across the Saskatchewan River at Saskatoon, and a wooden bridge across the Battle River, the other bridge work being light.

F. W. Morse, Vice-President and General Manager G. T. P. Ry., said in an interview at Montreal, April 17, that a satisfactory route had been surveyed from Edmonton to the foothills of the Rocky Mountains, about 200 miles, and that contracts would be let for its construction at an early date. Referring to the work in the mountains, he said that 12 survey parties were at work in the passes, and that until their reports had been received and considered, it would be impossible to say anything as to the further location of the line.

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Can be readily lifted and carried by two men.
Can be run at any speed required up to 30 miles per hour.
Can be quickly taken apart for storage in baggage car.
Carries comfortably three passengers and luggage.
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TORONTO JUNCTION

Canadian Branches—WINNIPEG and VANCOUVER

A despatch from Vancouver states that the British Columbia Pine Timber Co. is erecting a big saw mill on Kaien Island, for the purpose of cutting ties, for which it has secured a big order from the company. The ties are to be delivered at Prince Rupert, B.C.

An unconfirmed press dispatch from Winnipeg says a contract for the construction of the section of the line between Winnipeg and Portage la Prairie has been let to the McDonald, McMillan Co.

G.T.R. Betterments, Construction, Etc.

C. M. Hays, Second Vice-President and General Manager, on his return to Montreal, April 1, from England, stated that the company had purchased several lots near Trafalgar Square, London, upon which it was proposed to erect an office building for the G.T.R. and the G.T. Pacific Ry.

As a result of a conference between G.T.R. officers and the Ottawa city officials an arrangement for the erection of a central station and hotel building has practically been reached, and it is expected to be ratified at an early date. The plans prepared show a large modern building to cost about $1,500,000.

The G.T.R. is working out plans for the improvement of its lines in the vicinity of Lindsay, Ont., and its facilities for handling traffic in that town. The plans, it is said, show a short line from the main line to the old Midland line, west of the town; a line from Reaboro southerly to the line to Port Hope, to do away with gradients on the existing line; some double tracking; the relaying of the line between Lindsay and Port Hope with 80 lb. rails, and the building of a roundhouse of large capacity in Lindsay. At Port Hope, there will be considerable alterations and additions to the accommodation in the yard, to enable the additional traffic to be handled which will be brought in by the Charlotte-Port Hope steam ferry.

The plans submitted for the grade reduction, track elevation, and other improvements in London, Ont., were placed before W. T. Jennings, Toronto, Consulting Engineer, by the City Council. He reported that the scheme proposed was a good one, and should be gone into and worked out in detail, both as to the mode of elevating the tracks, and also with regard to the width and height of openings for streets now open across the tracks. He suggested that William St. be closed, or that at the most a subway be provided for pedestrians only; that the city should accept an earth embankment instead of steel trestles. A meeting of the sub-committee of the Council's railway committee was held April 15, for the purpose of drafting the agreement, which on approval by the Council will be submitted to the G.T.R. solicitors for acceptance.

Canadian Freight Association.

At the annual meeting in Montreal, Apr. 12, the following officers and committees were elected: President, F. J. Watson, G.T.R., Montreal; 1st Vice-President, S. P. Howard, C.P.R., Montreal; 2nd Vice-President, J. F. Chapman, B. of Q.R., Deseronto; Advisory Committee, J. W. Loud, W. R. McInnes, C. Howe; Executive Committee, W. B. Bulling, J. Pullen, C. Howe.

Classification Committee—W. B. Bulling, S. P. Howard, J. E. Dalrymple, F. J. Watson, C. E. Dewey, E. R. Bremner, W. Phillips, F. F. Backus, R. N. Collyer, M. H. Brown.

Inspection Committee—G. Collins, L. Macdonald, F. F. Backus, A. Cowan, F. Conway, M. H. Brown, John Paul, Guy Tombs, S. P. Howard, J. F. Chapman.

Canadian Northern Railway Construction.

Two railway projects in the State of Minnesota are being prosecuted, having for their object a connection with the C.N. Ry. The first of these, the Duluth, Rainy Lake and Winnipeg Ry., is under contract to the shores of Rainy River, at Koochiching, Minn., from which point it is proposed to construct a railway and general traffic bridge to connect with Fort Frances, Ont. A charter for this bridge has been obtained in Minnesota, and the Dominion Parliament is being asked for a charter for the construction of the half of the bridge and connections north of the International boundary. The title of the proposed bridge company is the Minnesota-Canadian Bridge Co., and the incorporators are representatives of the C.N. Ry., and the D., R.L. and W. Ry. The Canadian end of the bridge will be at Pither's Point, Ont., and it will be connected by a short line with the C.N. Ry. station and yards in Fort Frances, where the terminals will be located. Tenders have been invited for the bridge construction, and it is hoped to have it and the connecting lines completed by Dec. 31. It is proposed to run two trains a day between Duluth, Minn., and Fort Frances, through sleepers being run to Winnipeg and Port Arthur in connection with the C.N. Ry. through trains.

R. H. Hall, a Hudson's Bay Co.'s factor, who returned to Winnipeg April 11 from Fort Churchill, reported that he met a C.N.R. survey party engaged in location work near the watershed of the Churchill River. At that time the survey party had travelled over 400 miles by dog train. Reports from Winnipeg state that construction has been started from the line near Erwood, Sask., northerly, by Jas. Cowan, who has a large outfit on the ground.

Dominion Subsidy Contracts 1905-06.

The Dominion Government has entered into agreements during the current financial year to pay subsidies under the usual terms as to amount, for the construction of the following lines of railway:

MIDWAY AND VERNON RY.—From Midway to Vernon, B.C., 150 miles.

CENTRAL ONTARIO RY.—From the present terminus near Bancroft to a point on the Canada Atlantic Ry. near Whitney, Ont., 41 miles.

CANADIAN PACIFIC RY.—From St. Philippe d'Argenteuil station, or a point between three and Grenville, Que., northerly for there miles.

Railway Taxation in Ontario.—The question of railway taxation in Ontario has been before the Legislature for some years. In 1904, H. J. Pettypiece introduced a bill having for its object the increase of the taxes levied on railways in the province, but its discussion was shelved by the appointment of a commission with Mr. Pettypiece as Chairman, to investigate the whole question. The commission presented a lengthy report, but in the meantime Mr. Pettypiece was defeated at the general election of 1905, which resulted in a change of Government, and nothing was done. The new Government has now taken up the matter, and has laid before the Legislature a bill levying a mileage tax upon all railways in the province, and providing that of the amount realized $30,000 a year shall be utilized towards meeting the expenses of the Provincial Railway and Municipal Commission, and the balance distributed pro-rata among the municipalities, less a per capita charge for the maintenance of the inmates of the various provincial institutions belonging to each municipality.

Temiskaming and Northern Ontario Railway Finances.

The fourth annual report of the Commissioners contains details of the operation of the line from Jan. 16, 1905, when the 113 miles between North Bay and New Liskeard, Ont., were taken over from the contractors, to Dec. 31, 1905. The figures show:

REVENUE AND EXPENDITURE.

Passenger earnings	$108,681 76	
Mails and express	7,804 85	
Freight earnings	121,530 46	
Telegraph earnings	4,697 07	
Miscellaneous earnings	11,006 41	
Gross earnings		$253,720 55
Maintenance of way and structures	$25,072 89	
Maintenance of equipment	12,533 68	
Conducting transportation	88,342 41	
General expenses	13,823 52	
Total operating expenses		139,772 50
Net earnings from operation		$113,948 05

Percentage of operating expenses to gross earnings, 55%

Of the net earnings $100,000 was paid to the Treasurer of Ontario and $13,948.05 has been carried forward to the credit of profit and loss. The general balance sheet shows liabilities, accounts payable, $48,434.36; car mileage balances, $2,866.62; unclaimed wages, $49.80; profit and loss, $13,948.05. Assets—Agents' and conductors' balances, $8,351.63; accounts collectable, $24,313.00; foreign ticket balance, $5,233.38; fuel and supplies on hand, $13,587.45; Superintendents' petty account, $700; H. W. Pearson, $13,113.37; total $65,298.83. The capital account contained the following items:

LIABILITIES.

Loan from Province	$5,840,004 00
Advances from Province	1,636,164 27
Unclaimed wages	273 08
	$7,476,441 35

ASSETS.

Cost of road and equipm't,	$7,465,676 29	
Less proceeds from sale of wood	38,870 45	
		$7,426,805 84
Expended on townsites		6,321 58
Expended on prospecting townsites		3,475 97
Expended on James Bay appropriation.		4,461 25
Chief Engineer's petty account		2,771 00
Cash in bank	$41,872 10	
Less cheques outstanding.	9,266 39	
		32,605 71
		$7,476,441 35

The report contains statistics of train mileage showing: passenger trains, 45,538 miles; freight trains, 21,080 miles; mixed trains, 52,197 miles; total, 118,815 miles; passenger car mileage, 258,715 miles; freight car mileage, 873,689 miles; total, 1,132,404 miles. Passengers carried, 86,648; average distance travelled, 55 miles; average fare per passenger, $1.25; average per passenger per mile, .023c. Freight carried, 99,192 tons; average haul, 67 miles; average received per ton, $1.22; average received per mile per ton, .018c.

The gross earnings for Jan. and Feb. amounted to $56,520, and the expenditure to $37,111; net earnings $19.408.

For the purpose of retiring the Treasury loan Provincial bonds have been sold in London, Eng., and a bill has been introduced in the Legislature for the purpose of providing for the issue of $3,000,000 inscribed stock or bonds in Canada. The proceeds of this will be utilized to pay off $1,900,000 which has been advanced from the consolidated funds.

Jas. Alexander, Limited, has been incorporated under the Dominion Companies' Act, with a capital of $100,000, and offices at Montreal, to carry on a general business, and in connection therewith to own refrigerator and other freight cars, steam and other vessels, or to acquire stock in companies owning the same. The provisional directors are: D. C. Alexander, Steamship Agent; C. N. Powell, D. McNeill, F. G. Bush, M. J. O'Brien, all of Montreal.

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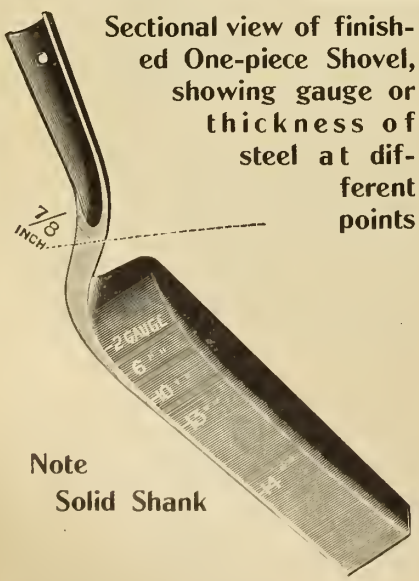

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Projects, Construction and Betterments.

Brandon, Man.—At a meeting of the City Council, April 2, a proposition was received from the Kensington-Brandon Land and Development Co., respecting the construction of an electric railway in the city. The company desire to construct 10 miles of line, which it is estimated will cost with equipment about $200,000. It was proposed to give a 10 minute service between 7 a.m. and 11 p.m. The consideration of the matter was held over until the next meeting of the council. (Mar., pg. 153.)

Brantford Street Ry.—It is proposed to proceed with the construction of a loop line round the north section of Brantford, Ont., to serve Terrace Hill, and to run to Mount Hope cemetery. (April, pg. 215.)

Calgary, Alta.—An application has been made to the civic commissioners for a franchise for a street railway in the city. The matter is being considered, and a report will be prepared and submitted to the council. R. P. Inglis, Montreal, who is interested in the Edmonton Street Ry. charter, is the principal promoter of the proposed line. The agreement which the applicants ask be adopted, provides for a 30 years' franchise; the laying of about eight miles of railway with a basis of fares the same as at Winnipeg; in return the company proposes to pay the city 10 per cent. of the stock at the expiration of the franchise, and the city to have the right to purchase the plant at a price to be fixed by valuation.

In 1893 an act was passed by the Dominion Parliament incorporating a company with the title of the Calgary St. Ry. Co., with power to construct an electric railway. No construction could be done until after an agreement with the council, and the company was to be subject to any ordinance of the Northwest Territories relating to electric railways.

Central Ry. of Canada.—In connection with the recent visit of Senator Domville to Great Britain it is stated that a strong financial syndicate in London, Eng., has taken the project up. An indication that new interests have become associated with the company is apparent from the fact that Sir A. P. Caron and Senator Edwards have been elected directors. The company has practically completed arrangements for the purchase of the stock, franchises and charters of the Ottawa River Navigation Co., and the Carillon and Grenville Ry. These two companies are under the control of the same interests, the railway—the only broad gauge one remaining in Canada—being operated in connection with the steamships running on the upper and lower stretches of the Ottawa River. The line is 13 miles long, and its train is hauled by one of the old Birkenhead locomotives imported into Canada by the G.T.R. It is rumored that the company has also purchased the Irondale, Bancroft and Ottawa Ry., extending from Kinmount Jct., on the G.T.R. Toronto-Lindsay line, to Bancroft, about 50 miles.

The company's charter does not specifically state that the railway is to be operated by electricity, but when the line from Montreal to the Ottawa River was first projected as the Ottawa River Ry., the promoters stated that it would be an electric line. In the charter, power is given to utilize water powers for generating electricity for the use of its railway and undertaking. (April, pg. 215.)

Charlottetown Electric and Transit Power Co.—Application is being made at the current session of the Prince Edward Island Legislature for the passing of an act incorporating a company with this title for the purpose of operating trolley cars in Charlottetown and vicinity. It is proposed to give a franchise for 15 years, with exemption from civic taxation for the first five years; a tax of 1% on the net earnings for the second five years, and 2% for the third five years. The promoters of the project are associated with the American Trackless Trolley Co., of Boston, and the negotiations with the city have been carried on by F. G. Tilton, Treasurer of the company, and R. S. Johnson, attorney, Boston, Mass.

East Toronto and Danforth Electric Ry.—The Ontario Legislature is being asked this session to pass an act incorporating a company with this title to construct a railway to be operated partly by electricity and partly by steam, or entirely by either of them, from the eastern boundary of Toronto to East Toronto, with a branch through Todmorden to Yonge St.; power is also asked to construct lines on such streets of Toronto as may be agreed upon with the city council. D. O. Cameron, Toronto, is solicitor for the applicants who are interested in a building estate in East Toronto.

Egerton Tramway Co.—This company operates a line through Westville, Stellarton, New Glasgow and Trenton, N.S., about eight miles in all, the terminals being at Westville and Trenton, and the power house at Stellarton, midway between the terminal points. The power house is equipped with two 150 h.p. Robb-Armstrong engines, three 125 h.p. return tubular boilers, two Canadian General Electric 100 k.w. generators, induced draft system and fuel economizer. The car equipment consists of five vestibule cars 38 ft. 6 in. long.

Fernie, B.C.—A proposition is under consideration for the construction of an electric line to connect Fernie with Frank, Blairmore, Coleman and other places in the vicinity. E. Tuttle, Fernie, B.C., is interested in the proposal.

Fredericton, N.B.—We have been advised by a city officer that a Mr. Mitchell had been interesting himself in connection with a project to construct an electric railway from Fredericton to Marysville, N.B., but that nothing had been heard from him for some time. A charter to incorporate a company, he stated, was granted in 1893, and in 1899 the charter was renewed for a further period of five years. (Feb., pg. 89.)

The Hamilton, Caledonia and Lake Erie Ry. is at present developing gas wells, and laying a pipe line along its route between Hamilton and Dunnville, Ont. The railway committee of the Ontario Legislature has granted an extension of time for the construction of the line, for two years to Caledonia; three years to Cayuga and four years to Dunnville. (Mar., pg. 153.)

Hamilton Terminal Co.—A provisional agreement has been entered into between the Hamilton Street Ry., the Hamilton Radial Electric Ry., the Hamilton Terminal Co., and the City Council, respecting the construction of a union terminal station in Hamilton. The City Council has not yet finally approved of the agreement. (Mar., pg. 153.)

Hamilton, Waterloo and Guelph Ry.—John Patterson has made application to the Hamilton City Council for a right of way through the city from James St. to the city boundary near Dundurn Park, the city to pay one-half of the cost of purchasing the property. The object of the company is to connect Hamilton with Galt by the shortest possible route, connecting there with the Galt, Preston and Hespeler Ry., and the Preston, Berlin and Waterloo Ry.; a line to Guelph; and connecting with C.P.R. at Schaw and Guelph stations. It is also proposed to extend the lines to Elmira on the C.P.R., and to Fergus and Elora. The line would be constructed of the same standard as the Hamilton Radial Ry., and would acquire its power from the Cataract Light, Power and Traction Co. The company had not been incorporated, Mr. Patterson stated, but all arrangements had been made for financing the construction when the act of incorporation was passed.

An application has been made to the Dominion Parliament at its current session, for the passing of an act incorporating a company with this title, to construct a railway from Hamilton to Elmira, passing through Galt, Preston, Berlin and Waterloo, and from Hamilton to Elora and Fergus, passing through Guelph; the lines to be operated by electricity or other motive power. Gibson, Osborne, O'Reilly and Levy, Hamilton, are solicitors for the applicants.

The Inland Empire Ry. Co. has been organized at Spokane, Wash., with a capital of $20,000,000, for the purpose of obtaining the necessary powers and constructing an electric railway from Spokane, Wash., to the Okanagan country and to Phoenix, B.C. J. P. Greaves is interested in the promotion, and it is reported that A. L. White, Secretary of the Granby Smelter, and C. Zimmerman, Consulting Engineer, New York, went over the territory between Spokane and Phoenix recently with a view of reporting on the prospects of traffic. The company owns a number of electric railways in and around Spokane, Wash., which it is proposed to extend towards the B.C. boundary.

Montreal and Southern Counties Ry.—An unconfirmed statement in Montreal is to the effect that an agreement has been entered into between the G.T.R. and the M. and S. C. Ry., whereby the latter company secures running rights for electric cars over the Victoria Bridge; and between the Dominion Government and the company for rights in the roads under the jurisdiction of the Montreal Harbor Commissioners. (Aug., 1905, pg. 371.)

Montreal Park and Island Ry.—Application is being made this session of the Dominion Parliament for an act extending the time for the completion of the lines authorized to be constructed. (Aug., 1905, pg. 371).

Montreal Street Ry.—A purchase of 5,000 tons of 86½ lb. T rails has been made, it being the intention of the company to make considerable extensions and improvement to the system.

Moose Jaw and Suburban Rapid Transit Co.—An act to incorporate a company with this title is under consideration at the current session of the Saskatchewan Legislature, for the purpose of constructing a railway to be operated by steam or electricity or both, from Moose Jaw northerly to Buffalo Lake; from Moose Jaw southerly to Dirt Hills; with branches east and west. W. E. Knowles, Moose Jaw, is solicitor for the applicants.

New Liskeard to Cobalt.—Consideration is being given to a project to construct an electric railway from New Liskeard to Cobalt, via Haileybury, Ont.

Niagara, Queenston and St. Catharines Ry.—The Dominion Parliament is being asked at the current session to pass an act extending the time for the commencement and completion of the authorized line of electric railway, and increasing the capital stock from $250,000 to $500,000. (Dec., 1904, pg. 429.)

Niagara, St. Catharines and Toronto Ry.—A contract has been let to Jos. Battle, Thorold, Ont., for the construction of the extension from St. Catharines to Welland, Ont. Work is to be started at once, and it is hoped to have the line completed by the fall. (Feb., pg. 89.)

Ontario West Shore Electric Ry.—The Ontario Legislature is being asked to pass an act extending the time for the completion of the projected lines in Huron County; giving power to expropriate the lands necessary for the right-of-way. etc. (July, 1903, pg. 235.)

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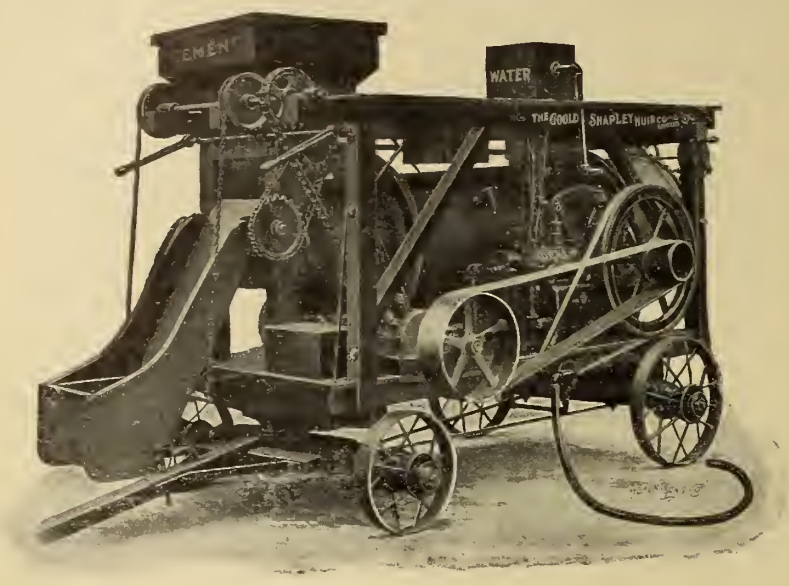

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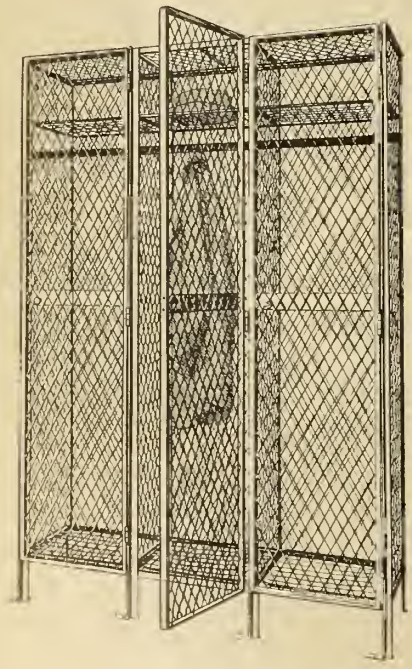

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Petrolea Rapid Ry.—The Ontario Legislature is being asked at its current session for an act extending the time within which the projected railway may be constructed. The secretary of the company is T. J. Gordon.

Port Arthur Electric Ry.—The Town Council of Port Arthur, Ont., is applying at the current session of the Ontario Legislature for an act authorizing an extension of its electric street railway. (Feb., pg. 89.)

Port Credit, Brampton and Guelph Ry.—R. J. Copeland, Toronto; J. H. Boulter, B. F. Justin, J. R. Fallis, J. Clarke, Brampton, Ont.; J. Sykes, Esquesing tp., Ont.; G. E. Ellis, Winnipeg, Man., are the provisional directors named in the act, before the Ontario Legislature, proposing to incorporate a company with this title to construct a railway from Port Credit, via Brampton, Huttonville, Georgetown, Acton, Norval and Glen Williams, to Guelph, Ont. While the company asks power to operate its line by electricity or other motive power, it proposes to utilize motor cars. The head office is to be at Brampton, Ont., the capital is fixed at $100,000, and the bonding power has been fixed at $25,000 a mile. (Feb., pg. 89.)

Sandwich, Windsor and Amherstburg Ry.—Application is being made at the current session of the Ontario Legislature by the S., W. and A. Ry. Co. as assignees of the South Essex Electric Ry. Co., for an act extending the time within which the authorized lines of that company may be constructed. The South Essex Electric Ry. Co. was incorporated in 1896, and amending acts giving additional powers were passed in 1897 and 1901. It is authorized to construct an electric railway along the southern shore of Essex county to Leamington, and from thence to Pelee Point.

South Essex Electric Ry.—See Sandwich, Windsor and Amherstburg Ry.

South-Western Traction Co.—A. E. Welch recently stated that the line between London and St. Thomas, Ont., would be opened for traffic early in May. (April, pg. 215.)

St. Catharines, Pelham and Welland Electric Ry.—The Ontario Legislature is being asked at its current session for an act extending the time within which its projected railway may be constructed.

Superior Portland Cement Co.—Application will be made to the Provincial Secretary of Ontario early in May for a charter under th Ontario Companies' Act, to enable the S.P.C. Co. to construct and operate a street railway from the factory in Orangeville to the lake near Caledon, about 1½ miles from the Orangeville municipal boundary; from the C.P.R. at lot 20, con. 3, Amaranth tp., to lot 20, con. 2, same township. G. McIntyre is provisional Secretary of the company.

Toronto.—Application is being made at the current session of the Ontario Legislature for an act authorizing the city to construct standard gauge railways upon independent routes within the city for the use of radial electric railways, upon vote of the taxpayers; and to make agreements for the operation of the same.

Toronto to Port Perry, Ont.—The Ontario Legislature will be asked this session for an act incorporating a company with power to construct an electric railway from or near Toronto to Port Perry, Ont., passing through the townships of York, Scarborough, Markham, Whitchurch, Pickering, Uxbridge and Reach, Ont., and with all powers necessary or incidental thereto. J. F. Lennox, Toronto, is solicitor for the applicants.

Toronto and York Radial Ry.—The rails on the extension of the Metropolitan Division from Newmarket to Jackson's Point, on Lake Simcoe, have been laid, and ballasting is being gone on with. It is expected to have the extension in operation in July. With the extension the division will be 55 miles long, and it is expected that cars will be run between Toronto and Jackson's Point in two hours. (Feb., pg. 89.)

Trans-Niagara Bridge Co.—Application is being made at the current session of the Dominion Parliament for an act incorporating a company to construct and maintain a railway and general traffic bridge across the Niagara River at Niagara Falls, Ont., together with spur lines to connect the bridge with adjacent lines of railway. It is proposed to unite with a similar company formed in the U.S. to construct the bridge. Royce and Henderson, Toronto, are solicitors for the applicants. (April, pg. 217.)

Windsor, Essex and Lake Shore Rapid Ry.—We are advised the following are the directors: Dr. Jas. Brien, Essex, Ont.; W. T. Piggott, Chatham, Ont.; W. C. Crawford, Tilbury, Ont.; W. L. Wilson, Port Huron, Mich.; T. L. Robinson, Detroit, Mich. Two other directors, of whose names we have not been advised, were elected subsequently. The line, which is under construction, will run between Windsor and Chatham, taking a generally southeasterly course from Windsor, passing through Essex to Kingsville, on the shore of Lake Erie, thence northeasterly to Chatham, about 90 miles. The grading is reported completed between Windsor and Kingsville, and tracklaying is in progress. The country through which the line will run is extremely level, with few engineering features of any importance. The power house is to be located at Kingsville. Orders have been placed for rolling stock, etc., for the line. (April, pg. 217, and Mar. pg. 153.)

Winnipeg Electric Ry.—An order-in-council has been passed granting to the W.E. Ry. Co., certain lands along the banks of the Winnipeg River, at the Pinawa or Lee channel, for power development purposes, in all about 2,360 acres, at a maximum price of $10 an acre. It is set forth in the order that the company or its predecessor in title has already expended $700,000 on the development plant, and that a further sum of $1,500,000 will have to be expended to complete the plant. It is proposed to develop from 20,000 to 30,000 h.p. and to deliver the same in Winnipeg.

Winnipeg to East Selkirk.—An application was made at the recent session of the Manitoba Legislature for an act incorporating a company to construct a railway to be operated by electricity or other power from Winnipeg to East Selkirk, thence to Fort Alexander, with branches to any point on Lake Winnipeg; also to construct telegraph and telephone lines in connection therewith. but it was not proceeded with.

Electric Ry. Finance, Meetings, Etc.

Brantford Street Ry.—Following are the officers and directors for the current year: President, A. J. Pattison; Vice-President, J. Firstbrook; other directors, Rev. E. T. Fox, W. S. Dinnick, J. S. King, W. R. Turnbull, A. J. Pattison, Jr. The same interests also own the Grand Valley Ry. and the Woodstock, Thames Valley and Ingersoll Electric Ry.

British Columbia Electric Ry.—Gross earnings for Feb., $87,284, against $73,038 for Feb., 1905. Working expenses, $51,408; renewal funds, $8,500; approximate income from investments, $7,967; net income, $35,347, against $41,295 working expenses; $6,695 renewal funds; $2,750 income from investments, and $27,798 net income for Feb., 1905. Gross earnings for eight months ended Feb. 28, $781,825; net earnings $353,410, against $616,987 gross, and $252,715 net for same period 1904-05.

Halifax Electric Tramway.—Railway earnings for Mar., $11,651.54, against $9,321.56 for Mar., 1905.

Kingston, Portsmouth and Cataraqui Electric Ry.—The railway committee of the Ontario Legislature has approved of the act confirming agreements between the company on the one hand, and the city of Kingston and the village of Portsmouth on the other, and re-arranging the finances of the company. The capital is reduced from $200,000 to $90,000, of which $50,000 is preferred stock and $40,000 common stock. The common stock is to be issued to holders of the common stock in the proportion of $1 of new for every $5 of old; and the preferred stock, which is non-cumulative 3%, is to be issued to unsecured creditors in the proportion of $1 for every $4 of indebtedness due by the old company. The company is authorized to issue $100,000 of 4% 20 year first mortgage bonds. The agreements with the Kingston and Portsmouth councils provide that if the line does not pay expenses within a year the company shall have power to discontinue its operations, take up the tracks, and remove the plant, in the event of the councils not desiring to purchase the lines.

Montreal Street Ry.—Passenger earnings for Mar., $232,858.70; total earnings $235,306.62, against $206,725.81 and $209,231.38 respectively for Mar., 1905. Net earnings, $78,843.21, against $50,227.02; fixed charges, $39,662.90, against $22,645.77; surplus, $39,185.31, against $27,581.25 for Mar., 1905. Net earnings for six months ended Mar. 31, $477,690.83, against $375,562.61; surplus, $299,065.92, against $257,111.53 for same period 1904-05.

Niagara, St. Catharines and Toronto Ry.—The St. Catharines City Council will apply at the current session of the Ontario Legislature for authority to issue debentures to meet an indebtedness incurred under a by-law of 1886, granting aid to the St. Catharines, Niagara Central Ry., by means of a guarantee of bonds. These bonds will mature June 1906.

Port Arthur Electric Ry.—The accounts for the operation of this municipal electric railway system for the period from Jan. 1 to Dec. 15, 1905, show earnings of $42,178.52, of which $464 was from advertising in cars, $1,649.57 from sale of power, and $3.50 miscellaneous; in addition there were accounts due for power amounting to $154.13, and the value of stock on hand was $603.61, making the total income $42,936.26. The expenses included $2,752.50, Superintendent's salary and office expenses; $184, proportion of rental town office; power house (proportion of expenses), $1,187.41; fuel, $156.50; car barn and cars, $12,742.31; track and line, $4,836.79; rent, real estate, insurance, etc., $6,069.77; proportion of principal and interest on debentures etc., $4,767.47; total, $32,757.75, leaving a balance of profit of $10,179.51. The statement of debt issued by the corporation shows a total of $142,493.88 as being due on the electric railway account, and the line is carried as an asset as being of the value of $153,487.67.

Sandwich, Windsor and Amherstburg Ry.—Following are the officers and directors for the current year: President, H. A. Everett, Cleveland, Ohio; Vice-President and Treasurer, J. C. Hutchins, Detroit, Mich.; Secretary, A. E. Peters, Detroit, Mich.; other directors, A. Pack, F. W. Brooks, Jos. Bampton, Detroit, Mich.; E. W. Moore, Cleveland, Ohio; R. B. Van Courtlandt, New York; Manager, Jas. Anderson.

The earnings and operating expenses of this line are included in the figures given in the report of the Detroit United Rys., by which the line is owned. Gross earnings, $5,125,563.01; operating expenses, including taxes, $3,041,522.90; net earnings, $2,084,040.11; income from other sources, $44,076.40; total income $2,128,116.51 against

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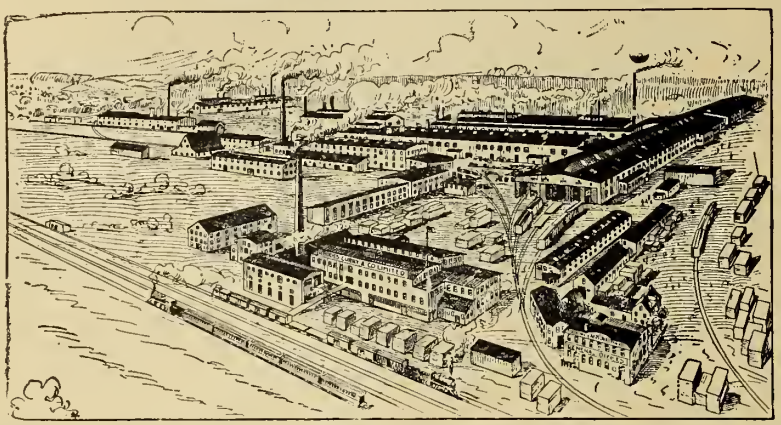

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$1,821,490.39. The interest on the funded and floating debt of the different lines was $1,113,293.25, of which $17,871.25 was in respect of the S., W. and A. Ry., which now has a mileage of 25.184 against 25.073 miles in 1904. During the year the line carried 1,961,876 revenue passengers, 148,926 transfer passengers, and 26,361 employes, a total of 2,092,163; the receipts per revenue passenger being .0547, and per passenger .0501c. Its cars ran 529,778 miles; the earnings per car mile being .2030c.; the expenses per car mile being .1107c., and the net earnings per car mile .0923c. During the year there was expended $25,097.43 on new paving in Windsor, the installation of machinery in the lighting plant, and building 686 ft. of track in Amherstburg. The balance sheet of the line given the following figures:

Capital stock		$297,000.00
Mortgage bonds		400,000.00
Accident fund		1,080.43
Detroit United Ry		134,936.97
Accrued interest		1,500.00
Accrued insurance		388.79
Unredeemed tickets		876.82
Surplus		33,518.00
Investment	$853,394.51	
Accounts receivable	298.40	
Prepaid taxes	2,431.87	
Stores	4,569.65	
Cash	8,606.58	
	$869,301.01	$869,301.01

St. Thomas Electric Ry.—The receipts for Mar., as reported to the St. Thomas, Ont., City Council, amounted to $1,108.21, against $852.19 for Mar., 1905.

Toronto Ry.—Car earnings for Mar., $233,813.77, against $207,013.73 for Mar., 1905.

At a meeting of shareholders held April 17, a resolution was passed authorizing an increase of the capital stock to $8,000,000 by the issue of 10,000 new shares of $100 each.

Woodstock, Thames Valley and Ingersoll Electric Ry.—This line together with its franchises has been purchased by the Grand Valley Ry. The new officers and directors are: President, A. J. Pattison, Jr.; Vice-President, J. Firstbrook; other directors, W. S. Dinnick, J. G. Wallace, Rev. E. T. Fox See also Brantford Street Ry.

Electric Railway Notes.

The Grand Valley Ry. has appointed P. Nelson, formerly in the G.T.R. service, to be Track Superintendent.

F. H. Glover, local manager at New Westminster for the British Columbia Electric Ry., has resigned, and proposes to engage in a ranching enterprise at Vernon, B.C.

The employes of the Ottawa, Hamilton and London, Ont., street railway companies have been looking over the wages schedules recently, and have put in demands for higher rates of pay.

The St. Thomas, Ont., Street Railway Commissioners have granted an increase of pay to the employes of the municipal street railway. The new rate gives the older hands an increase of a cent an hour.

The annual convention of the American Street and Interurban Railway Association, and of the allied Accountants, Engineering and Claims Agents' associations will be held at Columbus, Ohio, opening Oct. 15.

The Grand Valley Ry. has nearly completed its telephone line from Brantford to Galt, Ont. A telephone is provided on each car, and connection can be made at every switch, so that the conductors can communicate with the head office and receive orders.

The British Columbia Electric Ry. has filed its standard passenger tariff, C.R.C., no. 2, for its Lulu Island branch, with the Board of Railway Commissioners. The tariff shows a fare of 20c. for a five mile trip, 40c. for from 5 to 10 miles, and 60c. for from 10 to 15 miles.

A case against one of the motormen in the employ of the Egerton Tramway Co., for working on Sunday, is under the consideration of the County Court judge of Pictou, N.S. The information was laid under the Ante-Confederation statute forbidding the performance of servile work on Sunday.

The Windsor, Essex and Lake Shore Rapid Ry., which expects to have a portion of its line in operation early in July, proposes to run its cars on Sundays in order to obtain a legal decision in regard to the refusal of the Government to permit electric railways chartered within the last five years to be operated on Sundays.

The Supreme Court at Ottawa has dismissed the application of the Ottawa Electric Ry. to be relieved from bearing a share of the cost of the proposed subway at the G.T.R. crossing, Bank St., Ottawa. The Board of Railway Commissioners in directing the construction of the subway ordered that the cost should be borne by the G.T.R. and the Ottawa Electric Ry.

The employes of the Winnipeg Electric Ry. went on strike Mar. 29, and returned to work on April 7, a settlement having been effected through the intervention of the Ministerial Association. The agreement provides for an increase of wages, promotion by seniority and merit, semi-monthly pay days, and some other small concessions, but does not recognize the union. The agreement is to remain in force for a year.

The Montreal Street Ry. Co. has ordered a large quantity of apparatus from the Canadian Westinghouse Company. The order includes 20 quadruple equipments of 101-B railway motors complete with controllers and details; also a 1,000 k.w. 600 volt, direct current engine type generator for installation in the main power house, and three 500 k.w., three-bearing, motor-generator sets, consisting of type C motors and 550 volt direct current generators. These latter are similar in capacity to those now installed in the railway company's various substations, which feed directly into the trolley circuits.

Ottawa Electric Railway Co.

The director's report for the year ended Dec. 31, 1905, presented at the annual meeting, showed that the gross receipts for the year were $449,633.97, compared with $384,939.64 in 1904, an increase of $63,694.33. The net earnings have been disposed of as follows:—Interest paid on bonds, $20,000.00; four quarterly dividends of 2%, and a bonus of 2%, $99,320.00; mileage payments, $9,817.14; placed to credit of contingent account to be applied to reduction of track renewal, car equipment accounts, etc., $23,000.00; carried to credit of profit and loss account, $21,556.40; total, $173,693.54. The balance at credit of profit and loss account is now $169,280.20. During the year 80-lb. rails, 60 ft. and 62 ft. long, were laid on Nicholas St., between Rideau St. and Laurier Avenue, and on a portion of St. Patrick St. Next spring it is proposed to continue the latter work to the terminus in Rideau ward. Sufficient rails and ties to make the change are now in stock and paid for. The expenditure for track renewals during the season was $12,734. Entertainments were given in the Auditorium at Britannia-on-the-Bay from May 29 to Sept. 9 to crowded houses. In order to add to the attractiveness of the resort and give more accommodation, it has been decided to enlarge the Auditorium, also to extend the promenade pier 350 ft. to deep water and build a commodious yacht club house, all at a cost of about $20,000.

ASSETS.

Roadbed, equipment, water power, property, plant, real estate and buildings	$1,795,757.25
Stores	5,248.54
Accounts receivable	3,712.50
Discount unearned	1,136.67
Cash	5,191.69
	$1,811,046.65

LIABILITIES.

Capital stock	$998,200.00
First mortgage bonds, 4%	500,000.00
Dividend, payable Jan. 1, 1906	39,728.00
Interest on bonds, payable Jan. 5, 1906	10,000.00
Unpaid dividends	390.67
Accounts payable	5 465.46
Sovereign Bank of Canada	64,982.32
Contingent account	23,000.00
Profit and loss	169,280.20
	$1,811,046.65

Passengers carried, 9,891,311, against 8,717,205 for 1904; percentage of operating expenses to receipts, 59.4%, against 62% for 1904.

The President, T. Ahearn, in moving the adoption of the report and statement of accounts, stated that the receipts at the present were ahead of those of 1905, notwithstanding the fact that the parliamentary session, which was always a large source of revenue, had not yet opened, as was the case at the time of the annual meeting in 1905.

The report was adopted, and the directors re-elected. Following are officers and directors for the current year:—President, T. Ahearn; Vice-President, P. Whalen; other directors: W. Y. Soper, G. P. Brophy, T. Workman, Hon. G. W. Cox; Secretary-Treasurer, J. D. Fraser.

Grain Elevator Notes.

The Lowe Farm Elevator Co. Lowe Farm, Man., has sold its elevator to the Western Flour Mills Co.

The Alberta Legislature is being asked to pass an act incorporating the Alberta Pacific Elevator Co.

The Buffalo Lake Farmers' Elevator and Trading Co. has been incorporated under the Manitoba Companies' Act, for the purpose of constructing an elevator at Tuxford, Man.

The Lake of the Woods Milling Co. has decided to extend its chain of elevators in the west, and it is expected to have an additional 30 completed in time to handle the current year's harvest.

The Brackman-Ker Milling Co. has completed a cement elevator and steel tower at Strathcona, Alta. The elevator has a capacity for 100,000 bush., and the machinery is capable of discharging 2,000 bush. an hour.

The G.T.R. elevator at Tiffin, near Midland, Ont., will be able to receive grain from the biggest vessels navigating the Upper Lakes this season, as considerable dredging work will be done alongside it and in the channel. A contract for the work has been let to the Owen Sound Dredging Co.

Dominion Government Private Cars.—A return presented to the House of Commons recently showed that the Government owned nine private cars, of which three were used exclusively by officers of the Intercolonial Ry. The General Manager's car was burned in the fire at the shops at Moncton, and is not included. Following are some particulars of the original cost, and cost of operating the several cars as given in the return:

	Original Cost.	Cost of Operation.
Victoria, Gov.-General's Car	$11,938	pd.by G.G.
Alexandra, " "	18,000	"
Acadia, Board of Ry. Commissioners	21,000	$1,600
No. 109, Minister of Rys. and Canals	18,850	1,222
Ottawa	11,265	1,156
No. 28		1,208

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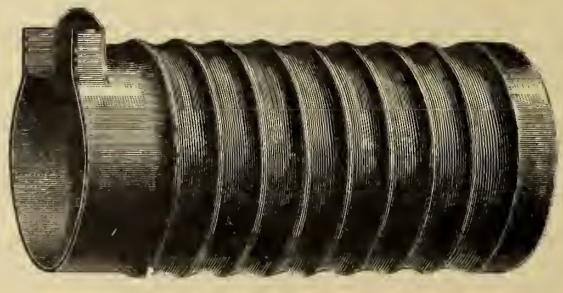

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MARINE DEPARTMENT

LIST OF STEAM VESSELS REGISTERED IN CANADA FROM MAR. 15 TO APRIL 15.

Name.	No.	Where and When Built.	Engines, etc.	Length	B'dth.	Depth.	Gross tons.	Reg. tons.	Home Port.	Owners.
				ft.	ft.	ft.				
Cypress Queen	121,729	Actaeon Sound, B.C., 1905.	Screw 2 3/5 N.H.P. .	33.0	10.0	4.8	17	11	Vancouver, B.C.....	A. M. Snider & J. Denins, Lund, B.C.
Elaine.....	111,156	Unknown, 1888.....	" 31 " ...	112.7	23.8	7.8	272	156	St. John, N.B.....	The Hampstead S.S. Co., Oak Point, N.B.
Hiawatha....	121,727	Victoria, B.C., 1906.....	" 1/5 " ...	20.0	7.5	5.3	5	3	Vancouver, B.C.....	E. Macgowan, Vancouver, B.C.
Iceland.....	112,307	The Narrows, Man., 1904..	" 2 2/5 " ...	44.0	13.0	5.0	34	23	Winnipeg, Man.....	H. Emarsson, The Narrows, Man.
Islander.....	121,845	Toronto, Ont., 1905.....	Dredge.....	78.2	30.0	6.6	242	242	Toronto, Ont.....	F. Simpson, Toronto, Ont.
Juanita.....	121,734	Vancouver, B.C., 1906.....	Screw ½ N.H.P....	19.8	7.2	2.2	3	2	Vancouver, B.C.....	A. French, Vancouver, B.C.
Maid of Mist..	121,728	Unknown, ——.....	" 1 3/5 " ...	33.0	6.4	2.8	6	4	"	R. Porter, Vancouver, B.C.
Mikado.....	112,308	Selkirk, Man., 1905.....	" 23 " ...	120.0	26.0	7.8	242	168	Winnipeg, Man.....	R. Smith, J. Morrison, Selkirk, Man.
Roamer.....	121,732	Vancouver, B.C., 1905.....	" 7 " ...	17.7	5.1	2.1	1	1	Vancouver, B.C.....	J. S. Gall, Vancouver, B.C.
Trudel II.....	121,783	Douglas Farm, Que., 1904..	Stern Wh., 2 7/10n.h.p	40.4	16.7	3.6	15	5	Ottawa, Ont.....	J. B. Klock, Mattawa, Ont.

LIST OF SAILING VESSELS AND BARGES REGISTERED IN CANADA FROM MAR. 15 TO APRIL 15.

Name.	No.	Where and When Built.	Rig.	Length	B'dth.	Depth.	Gross tons.	Reg. tons.	Home Port.	Owners.
Adrienne.....	116,180	South Boston, Mass., 1883.	Schr.	73.8	18.2	9.0	51	51	Amherst, N.S.....	D. W. Robb, Amherst, N.S.
Eileen.....	121,730	Vancouver, B.C., 1904.....	Yawl	23.1	9.0	4.4	8	8	Vancouver, B.C....	W. C. Graveley, Vancouver, B.C.
Finettie May....	121,874	Yarmouth, N.S., 1906.....	Sloop	33.0	11.3	6.0	12	12	Yarmouth, N.S....	J. A. Crocker, Yarmouth, N.S.
Francis A.....	121,872	Shelburne, N.S., 1906.....	Schr.	84.0	22.5	9.3	93	93	"	H. A. Amiro, West Pubnico, N.S.
IX.....	121,726	Vancouver, B.C., 1906.....	Barge	90.2	30.3	7.7	104	104	Vancouver, B.C....	The Union SS. Co., Vancouver, B.C.
Mary A. Duff...	121,855	Lunenburg, N.S., 1906.....	Schr.	94.9	25.4	10.0	114	90	Lunenburg, N.S...	E. Walters, Lunenburg, N.S.
Mattawa.....	121,854	"	"	92.0	24.6	9.8	108	96	"	S. Corkum, Lunenburg, N.S.
Ronald G. Smith	121,856	"	"	100.0	26.0	10.3	118	100	"	W. C. Smith, et al, Lunenburg, N.S.
Viola S.....	121,873	Surettes Island, 1906.....	Sloop	35.2	12.9	6.4	16	16	Yarmouth, N.S....	S. Surette, Surettes Island, N.S.

Wreck Commissioner's Report for 1905.

Commander O. G. V. Spain, Wreck Commissioner, has instructions from the Dominion Government to investigate every casualty of importance and to deal promptly with any carelessness or want of judgment shown by pilots or shipmasters in the navigation of Canadian waters. The instructions issued to him during 1905 also covered casualties occurring on the Great Lakes and in his report to the Department of Marine upon the work of the year, he says:

"I found on inquiring into matters in different localities of the lakes, that it was necessary that strict investigation should be held as far as possible, as in some instances the lack of even moderate attention to the safe navigation of vessels was deplorable. The masters, officers and seamen who man Canadian vessels on the Great Lakes are, as a rule, skilful and intelligent, and compare most favorably with their confreres on salt water, but there is no doubt that inquiries into casualties should be held in the same manner as on the sea coast." During the year investigations were held into casualties occurring to the following vessels:

ATLANTIC COAST—Parisian-Albano collision; Christian Knudsen-Thrift collision; Turbin, ship struck and all hands lost; Lunenburg, 11 lives lost; Skidley, Pro Patria, Salerno.

RIVER AND GULF OF ST. LAWRENCE—Hosanna-Empire collision; Euphemia-Tordenskjold collision; Universe-Bay State collision; Agnar, Victorian, Virginian, Aranmore, Wastwater, Bavarian.

GREAT LAKES—Argyle; Turbinia-Primrose collision.

In reference to casualties on the St. Lawrence route during the last season, there has not been a single loss of life and only in one case is there the possible loss of an ocean liner. This compares most favorably with casualties that have occurred in other parts of the world. There were three cases of vessels grounding when leaving their wharves and three cases of collision. The ship channel cannot be held, in the remotest degree, responsible for any of these. In the case of the Victorian, the court of inquiry which was held found that the casualty was an unavoidable accident, which might have occurred in any narrow channel, and to avoid a repetition of a disaster of the same nature, it is proposed to establish telegraphic communication along the route, so that vessels may be held, at gares, in the event of fog shutting down without warning. The Agnar, the Virginian and Bavarian disasters are attributable to careless navigation on the part of the pilots. The collision between the Tordenskjold and the Euphemia would have occurred on the open ocean, if one of the vessels had been navigated in the same careless manner. This remark also applies to the Hosanna-Empire collision. In the Wastwater case, the casualty happened outside the ship channel altogether, and is again entirely attributable to careless navigation. The Bay State-Universe case is before the civil court. It must be acknowledged that there are difficulties on the St. Lawrence route, but these difficulties are well known and only have to be guarded against. The officers responsible for the navigation of the different vessels should know the tidal conditions, draught of water of their vessels and the depth and breadth of the channel at the various points, and they should, also, recognize the fact that aids to navigation, such as gas buoys, are simply aids, and that in most cases (at any rate, below Quebec), the good old stand-by, the compass, assisted by the chart, if properly cared for and looked after, will help them out.

The Department of Marine, Ottawa, has prepared an index to the notices of mariners issued in Canada during 1905, copies of which may be obtained by those interested in navigation on application.

Dominion Marine Association.

The annual meeting was held in Ottawa, Mar. 22, the following being present: J. A. Cuttle, L. Henderson, Montreal Transportation Co.; H. C. Hammond, C. H. Nicholson, Northern Navigation Co.; A. A. Wright, Waldie & Wright, Toronto; F. Plummer, Canadian Lake and Ocean Nav. Co.; G. T. Marks, Canadian Northwest SS. Co.; R. O. MacKay, Hamilton and Fort William Nav. Co., New Ontario SS. Co., Union SS. Co., and Hamilton and Montreal Nav. Co.; C. J. Smith and G. Johnson, Richelieu and Ontario Nav. Co.; G. B. Greene, Upper Ottawa Improvement Co.; D. Murphy and G. P. Murphy, Ottawa Transportation Co.; D. J. McIntosh, Niagara, St. Catharines and Toronto Ry. and Nav. Co.; R. W. Shepherd and F. Elliott, Ottawa River Nav. Co.; C. A. Jaques, Montreal and Chicago SS. Co., Lake Erie SS. Co., and Montreal and Great Lakes SS. Co.; J. H. G. Hagarty, St. Lawrence and Chicago Steam Nav. Co.; T. Donnelly, Donnelly Salvage and Wrecking Co.; E. Horsey, Lake Ontario and Bay of Quinte Nav. Co.; J. H. Hall, Ottawa Forwarding Co.; D. Noonan, Rideau Lakes Nav. Co.; B. W. Folger, Niagara Nav. Co.; E. A. Hall, F. E. Hall & Co., L'Orignal; R. T. Holcomb, str. Hebron; J. P. Kavanagh, J. Hannan, and C. E. Loomis, Ogdensburg Coal and Towing Co.; the Secretary, Francis King; E. Adams, Chairman of the Board of Steamboat Inspectors, and Capt. L. A. Demers, Chief Examiner of Masters and Mates.

A deputation from St. Catharines, Ont., Mayor Riddell and Capt. McMaugh, were introduced by E. A. Lancaster, M.P., and asked the support of the Association for a largely signed petition which they carried, addressed to the Minister of Railways and Canals, praying for an annual subsidy for the continued maintenance of gas pipes and gas supply along the Welland Canal. The deputation having been heard the president announced the decision of the executive committee, embodied in the annual report,

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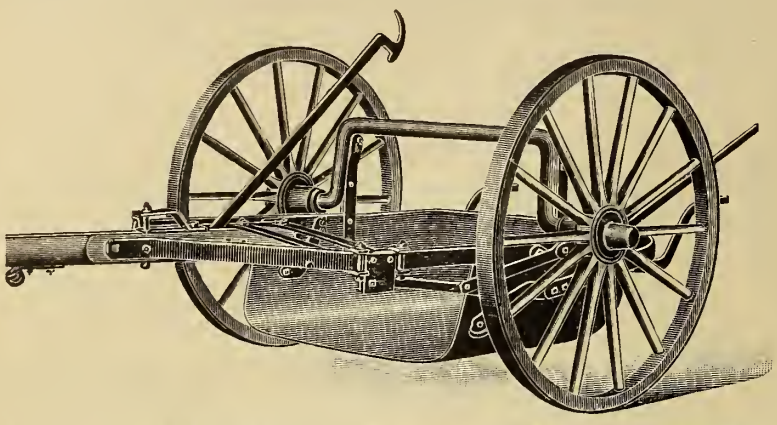

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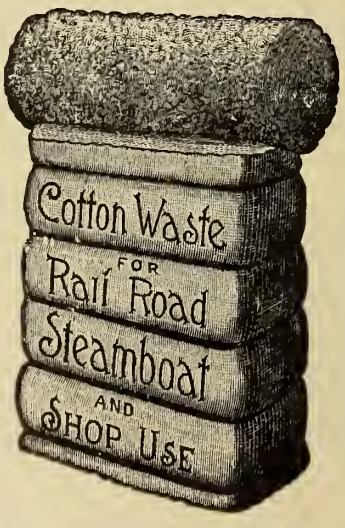

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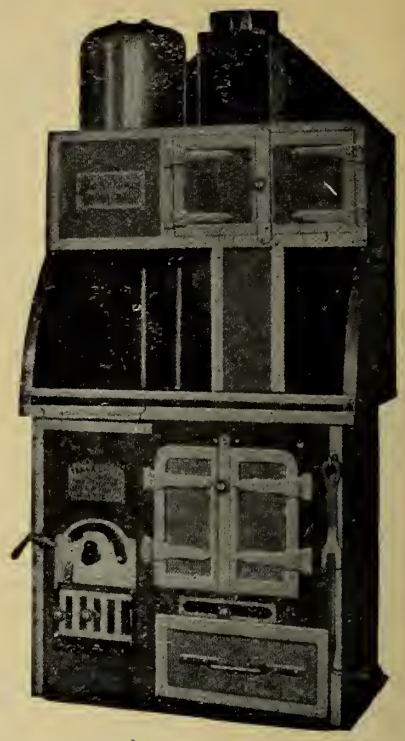

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that no action be taken by the Association as a body, though members be left free to act individually as they might desire.

The report of the executive committee was read and adopted as follows:

RAPIDE PLAT CANAL—At the last annual meeting your committee reported having asked the Government to defer action upon the proposal to grant the town of Morrisburg a lease of water power from this canal, and the meeting adopted the recommendation. Subsequently a deputation from the Association met the Minister of Railways and Canals, and presented a memorial, praying that the interests of navigation might be watched and safeguarded. This petition was favorably considered, and later, by appointment, representatives of this Association met Mr. Douglas, Hydraulic Engineer from the Department, at the canal, and arrangements were made for such permanent works and structures to protect the channel and such limitation of the withdrawal of water from the canal as would effectually prevent any chance of vessel interests being prejudiced in any way by the development of the water power desired.

CARILLON AND GRENVILLE CANALS.—An appropriation having been made by Parliament for the purpose of lighting these canals, a petition was presented last summer by your committee praying that the work might be promptly commenced. Tenders were advertised for, and although the work was deferred until the close of the season your committee is pleased to report that it has now been undertaken.

CORNWALL CANAL, ELECTRIC TRACTION.—By Order-in-Council of March, 1905, vessels were prohibited from entering or passing through the locks of this canal under their own steam, and were compelled to accept haulage by electric cables operated by motors adjoining each lock. The system met with protests from all mariners on account of its many difficulties and the great delays and dangers involved in its adoption. and a deputation from the Association forthwith interviewed the Minister and Deputy Minister, presenting a memorial praying for relief. Your Secretary interviewed many parties, and personally inspected the system in operation, and considerable correspondence with the Department ensued. The Minister finally inspected the canal towards the close of the summer, and in response to further enquiries has stated that the matter will have further consideration before the coming season. Your committee has arranged for an interview with the Minister and recommends a further urgent protest.

CORNWALL CANAL CLOSING.—Notice has been given that the canal will be unwatered on April 1, and will remain unwatered till April 30. Your committee has realized the serious delay this will entail in the opening of through navigation and has asked for a reconsideration of the proposal and that in no event should the canal be allowed to remain closed more than five days at most after the opening of the Welland. The matter is only promised consideration, and your committee urge the necessity for further strong representations on the subject to the Minister.

FARRAN'S POINT CANAL.—The request made upon resolution of the last annual meeting to have this lock open on Sunday in the same manner as the lock at Cardinal, was not granted, the Department not being prepared in this instance to entrench further upon the principle that the canals remain closed during daylight on Sunday.

OPENING OF ALL CANALS ON SUNDAY FOR Fall Traffic.—Upon the request of the Association this general relaxation of the rule was again allowed in the last season to accommodate the heavy movement of freight before the season closed.

LACHINE CANAL.—A request has been presented by your committee that protecting booms be placed at bridge piers and other necessary points in this canal, just as in the Welland, and the matter has been promised consideration.

LIGHTING OF WELLAND CANAL.—The City Council of St. Catharines asked the co-operation of this Association in an effort to induce the Government to retain the old gas pipes and services along this canal and to assume the obligation to pay for their maintenance, and for the continuance of a gas supply in case of emergencies. A deputation from St. Catharines waited upon your committee at its last session and pressed their request. $4,000 was named as the annual sum they would request the Government to pay for maintenance and gas supply. Your committee advises no action on the part of the Association in support of the request.

RECIPROCAL ARRANGEMENTS BETWEEN THE U.S. and Canada.—It was very shortly after the last annual meeting that the reciprocal abolition of the inspection fees in the U.S. and Canada was finally accomplished. Not long after, and just in time for the season's inspection, further reciprocal arrangements were concluded at the instance of the Association, whereby vessels are now only required to comply with the inspection regulations of their own country. Had this arrangement not been brought about, great hardship would have been entailed, as immediate compliance with the absolute letter of certain new rules referred to in your committee's last report was physically impossible. The thanks of the Association are due to the heads of the departments interested, both at Ottawa and at Washington, for facilitating the arrangements, and the courtesies extended to your secretary by the authorities at Washington deserve special recognition.

HARBOR MASTER'S DUES; SICK MARINERS or Hospital Dues; and Tonnage Tax in U.S. Ports.—The question of relieving U.S. vessels from harbor master's dues said to be charged upon them in Canadian ports has lent impetus to renewed effort to abolish the other taxes above named. Your Secretary has called the attention of the Department of Marine to the terms of the U.S. statute, whereby the tonnage tax of 3c. a ton for the first five trips is imposed on vessels entering U.S. ports, the statute providing expressly that the President shall by proclamation exempt from its operation the vessels of any country in whose ports U.S. vessels are entered free, and shall also exempt such foreign vessels in any event to the extent of the excess of the U.S. tax over the amount of the tax that may be levied on U.S. vessels in the foreign country, provided no discrimination is made against U.S. vessels in the matter of taxation in the ports of such country. This exemption was granted vessels from Ontario by proclamation of President Arthur in 1885, because of the free entry of U.S. vessels in Ontario ports, and similar proclamations have since been made effecting many other countries. In Quebec, the Maritime Provinces and British Columbia, however, the hospital tax is imposed by R.S.C., cap. 76, and amounts to 6c. a ton. It is argued that vessels from Quebec Province should, in any event, enjoy the exemption from the U.S. tax as to the extent at least of the difference between the 15c. and the 6c. charged in the two countries, and further, that in accordance with the many previous requests of the Association and of the Shipping Federation of Canada, the hospital tax should be abolished and complete freedom from taxation be thus gained for Quebec vessels in U.S. ports. It is learned that the Bureau of Navigation at Washington is recommending the repeal of the provisions requiring the President of the U.S. to grant reciprocal exemption, and it is therefore proposed to urge immediate action by our Government, by means of a deputation to the Minister of Marine, with whom an appointment has been arranged.

PORT ARTHUR AND FORT WILLIAM HARBORS.—In response to a request from the Department of Marine for suggestions with reference to the opening of these harbors, your committee in April, 1905, recommended that the harbors be opened in the spring contemporaneously with the opening of the Sault Ste. Marie canal and St. Mary's River, and that they be kept open in the fall of the year up to December 12.

OPERATION OF LIGHTS, FOGHORNS, ETC., in Late Fall.—Correspondence on this subject took place with the Department, and an agreement was finally arranged to keep lights and foghorns in operation on Lake Superior, Lake Huron, and Georgian Bay, up to Dec. 16, and on lower waters up to Dec. 20, excepting a certain few named points where automatic gas lights were to be installed, and excepting the foghorns on Caribou and Western Islands. At the same time a cordial correspondence took place with the Lake Carriers' Association regarding the lights in U.S. waters.

EDDY BROS. RANGE LIGHTS AT BLIND River.—The owners of these private lights having discontinued their operation, the Department undertook at the request of this Association to take over and continue the operation of the range.

COLLINGWOOD LIGHTS.—The petitions of this Association and of the Collingwood Board of Trade, and of the Masters and Mates Association, were granted, and the desired work upon these lights was promptly undertaken.

PELEE ISLAND LIGHT.—Upon request from the Department for advice as to the proposed discontinuance of this light on account of the new light upon the Middle Ground, your committee, after full investigation, countenanced its discontinuance so far as the interests of through navigation were concerned, but without prejudice in any way to the rights of local parties and local traffic.

FOGHORN AT PRESQUE ISLE LIGHT NEAR Brighton.—A petition was presented by your committee for the erection of a foghorn at this point, the surroundings being dangerous and the traffic extensive, as the Murray canal here connects thd Bay of Qninte with Lake Ontario.

GODERICH HARBOR.—Upon urgent representations to the Minister of Public Works, certain necessary dredging in the channel entering this harbor was promptly undertaken and prompt notice of an alteration of the range lights leading to the harbor was subsequently received and circulated by your Secretary.

TORONTO HARBOR.—The Association petitioned for the improvement of the channel at the eastern entrance of this harbor last summer, and later joined the Toronto Harbor Commission in pressing the request. The work asked for has now been undertaken.

GALOPS RAPIDS.—Having notice of improvement works here in the summer season, and consequent blockade of the channel, your committee was successful in arranging for notice to all vessels to use the canal and for permission for rafts to pass down the rapids upon telegraphing the time of their arrival in advance.

SHOALS NEAR CARDINAL CANAL.—Your committee's request for improvement at this point was not acted upon, on the ground that a sufficient width of navigable water existed clear of the shoals

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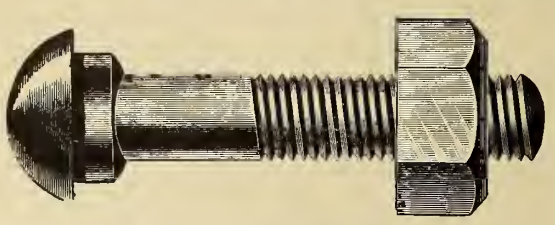

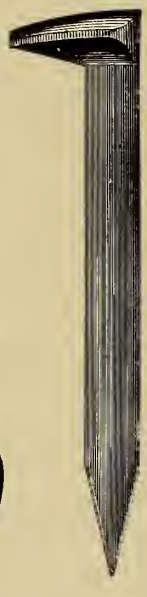

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TORONTO, ONTARIO

BELLEVILLE BRIDGE ACROSS BAY OF QUINTE.—Your committee's request for protecting booms at the base of the piers of this bridge was referred by the Minister of Public Works to the engineer in charge of the district, and the latter has now asked for a meeting with representatives of the Association and an appointment is being arranged.

SPEED OF VESSELS IN NARROW CHANNELS.—A proposal for regulations governing the speed of vessels in narrow channels was referred to your committee, and the Secretary was instructed to communicate with the Lake Carriers' Association on the subject, as joint action would be required to assist matters in such channels as the St. Mary's, St. Clair, and Detroit Rivers. Correspondence with H. D. Goulder, counsel for the Lake Carriers' Association, developed the view, however, that the proposal was impracticable, and that parties should be left to their common law rights, which would depend in each case upon the special facts involved, such as the proximity of the vessels, the sufficiency of mooring lines, etc. Your committee therefore took no further action in the matter.

SPEED OF VESSELS IN TORONTO HARBOR.—Upon noting that the speed limit for vessels in Toronto Harbor was four miles an hour, your committee considered the advisability of having the limit increased, and correspondence ensued with the Harbor Commissioners. That body has now adopted regulations increasing the limit to seven miles an hour.

INTERNATIONAL WATERWAYS COMMISSION.—Your committee arranged for a hearing by the Commission, and after investigation and correspondence with the Montreal Board of Trade and other bodies, prepared a memorial protesting against any action which might possibly tend to decrease the St. Lawrence levels. Your President and other members attended on behalf of this Association at Montreal, and your Secretary and others at a subsequent session at Kingston, presenting in each case the views of the Association. An assurance was received that no interference with the St. Lawrence would be tolerated for a moment.

It is important to note that another question of international importance is arising for the consideration of this Commission, namely, the encroachment of power companies upon the water supply at Sault Ste. Marie. The Lake Carriers' Association of the U.S. is interesting itself in the matter, and your committee recommends that a memorial be presented to the Commission on behalf of this Association urging that no interference with navigation interests be permitted.

CLEARANCES AT PORT ARTHUR AND FORT WILLIAM.—The memorial on this subject presented to the Minister of Customs last year by this Association was favorably considered, and after a short correspondence orders were issued permitting a vessel to obtain one final clearance before leaving the twin ports, instead of, as heretofore, having to clear repeatedly from one port and then the other in the course of picking up her cargo at the various elevators.

GRAIN ELEVATORS; SHORTAGES IN WEIGHTS; Loading and Unloading; Methods; Demurrage.—These subjects received consideration at several meetings and in general correspondence extending throughout the year. Agreements were entered into by vessel owners carrying grain, with a view to improving conditions and preventing unfair loading advantages to any individuals, and the authorities of the C.P.R. and C.N.R. were interviewed by deputations who asked assistance in remedying existing evils. A special deputation also interviewed the Minister of Trade and Commerce, and his assistants, regarding the loading methods at Lake Superior elevators, and undoubtedly these efforts resulted in a marked improvement in many respects at Port Arthur and Fort William. During the last months of the past season, however, serious difficulties developed in Georgian Bay ports, a car famine existing, and vessels being compelled to lie unloaded for days at a time waiting for discharge. Correspondence took place with the railways, and a deputation waited upon G.T.R. officials in Montreal, urging a better car supply. Later a complaint was lodged with the Railway Commission by an individual member of the Association, but the Association has not yet taken that action as a body, and it is hoped that the requirements of the situation will have been sufficiently realized and met by the railways before the coming season opens.

In this connection attention should be called to the new car service rules promulgated by the Commission, whereby a new tariff by way of demurrage is fixed, to govern in all cases of delay in loading or unloading cars. The Commission refers incidentally to the request from many quarters for what they call "reciprocal demurrage" to protect the public against default and delay on the part of the railways, but they state that the subject requires investigation and consideration. They promise careful attention to any material representations, however, and your committee recommend that the subject should have consideration.

The past season also provided fresh cause of complaint against the constantly recurring shortages in the weights of grain discharged from vessels. The Department of Trade and Commerce had deferred action in the matter last summer to ascertain the result of the efforts for improvements instituted by the C.P.R. at the upper ports. Your committee was, however, compelled to renew its requests for Government assistance, and a memorial has been presented praying that the principle adhered to in certifying the weight loaded into vessels at the upper ports be logically extended, and that the unloading and weighing out at lower ports be also supervised and certified by Government officials, and that the vessels be relieved of responsibility for shortages, the cost of which is now deducted from their freight. The Department has asked for statements of the shortages occurring, and your Secretary has compiled a statement from the returns received, showing a total net shortage for the season, in the case of the companies reporting, amounting to almost 10,000 bush. The matter is under consideration by the Department.

GRAIN CLEARING HOUSE AT PORT ARTHUR and Fort William.—A plan is being gradually evolved for the establishment of this clearing house to facilitate loading of cargoes by obviating the necessity for visiting a number of elevators, the intention being to load each vessel at one point and arrange a system of accounting among the elevators, shippers and carriers, to keep track of the grain. The plan has been laid before the Grain Exchange at Winnipeg, and has received its endorsement, while the railways are also interesting themselves in the development of the scheme. A committee of the grain section of this Association has the matter in charge and hopes to bring it soon to a successful issue.

PORT WARDENS AND INSPECTION OF Loading.—The Department of Marine has consulted the Association regarding proposed legislation providing for port wardens with supervising powers on inland waters in like manner as at ocean ports. A request has been made on behalf of the Association for opportunity to examine and report upon any bill that may be introduced.

BILLS OF LADING.—Attention has been called to the faulty and inaccurate character of certain bills of lading in use at Port Arthur and Fort William. In some the dangers of navigation are "accepted" where the clear intention is to "except" them; there is no express provision for demurrage such as is necessary to give a right against a consignee, and the clauses casting responsibility on the vessel for shortages are objectionable. Your committee believe the provisions of the Harter Act (U.S.A.) relieving the owner from negligence of his navigators should be incorporated in the bills. Correspondence on the subject is now pending with the Winnipeg Grain Exchange.

DUTY ON METALLIC LIFE BOATS.—The request of this Association presented to the Minister of Customs by deputation and by memorial asking for removal of this duty, as no Canadian manufacturer would be prejudiced, was referred by the Department to the Tariff Commission. Recent enquiries lead to the conclusion that no report in the matter can be expected for some time to come. The Department does not acknowledge that it has any jurisdiction in the matter and claims that the remedy can only be granted by legislation, and that a report must be awaited.

DUTY ON FUEL.—Upon consideration your committee decided not to endorse the petition of the Western Coal Association for the removal of duty on vessel fuel, believing that the subject was debatable from many points of view, and that the Association should not interfere at present.

COMMITTEES.—A special committee of the Association has been formed comprising all members engaged in the carrying of grain down the lakes, and this "grain section," as it has been designated, has held many meetings throughout the past year, taking action in matters specially affecting the grain trade. By resolution of the section a special levy was made upon its members on account of expenses incurred in its special work and $329.23 resulting from this appears as an item of revenue in your Treasurer's financial statement. The appointment of a committee on aids to navigation is suggested, in addition to the executive and the grain section.

MEMBERSHIP AND EXPENSE.—The tonnage represented in the Association is now 107,414 net registered tons, of which 77,230 is steam and 30,184 is barge and sailing property. The Association continues to represent all the leading passenger and freight lines on the inland waters of Canada, the only noticeable exceptions being the vessels owned by the G.T.R. and C.P.R., and the Algoma Central boats at Sault Ste. Marie. Your committee recommends an assessment for the coming year at the same rates as those fixed at the last general meeting.

CONDOLENCES.—Your committee desires to record the universal feeling of deep and sincere regret experienced upon the loss of one of its most active and efficient members, the late C. F. Gildersleeve, who had taken a very prominent part in the formation of the Association, and as its first elected President assisted to a great extent in giving the Association the assured position of usefulness it now occupies. In the absence from Canada of the present President, J. A. Cuttle, one of the Vice-Presidents, A. A. Wright, with your Secretary, represented the Association at Mr. Gildersleeve's funeral, and an anchor of flowers from this Association was among the great number of tokens that testified to the loving esteem in which Mr. Gildersleeve was held.

In the late Minister of Marine, Hon. Raymond Prefontaine, the Association has suffered a further loss, shared by the navigation interests of the whole country. A reso-

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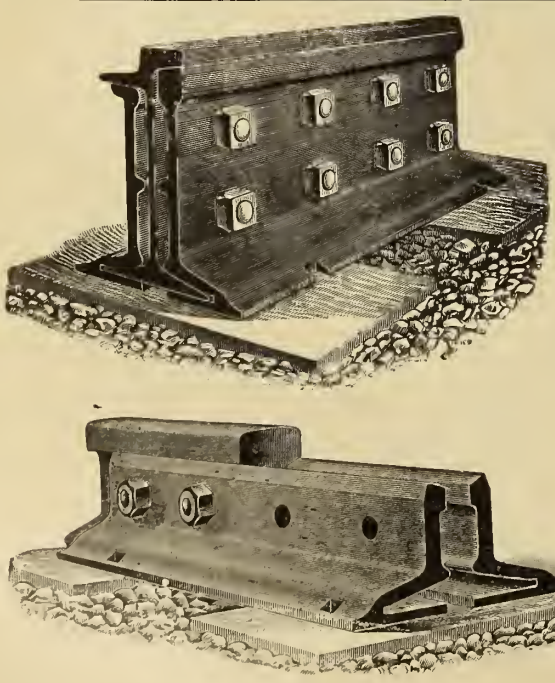

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Arr. Lowell	*7.29 p.m.,	*6.37 a.m.
" Worcester	†9.04 "	*9.19 "
" Boston	*8.15 "	*7.30 "

VIA G.T.RY., AND WHITE RIVER JCT.

Lv. Montreal	*9.01 a.m.,	*8.40 p.m.
Arr. Lowell	*6.11 p.m.,	*7.17 a.m.
" Worcester	†9.04 "	*9.19 "
" Boston	*6.55 "	*8.05 "

VIA G.T.RY., WEST SHORE & ROTTERDAM

Lv. Toronto		*4 10 p.m.
" Niagara Falls		*6.30 "
" Buffalo	*4.30 a.m.,	*7.20 "
Arr. North Adams	*1.08 p.m.,	*5.11 a.m.
" Worcester	*4.55 "	*9.59 "
" Boston	*5.20 "	*9.50 "

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An order-in-council has been passed re scinding the regulations hitherto in force under the act for the preservation of health on public works, and establishing a new set of regulations in lieu thereof.

lution of condolence, referring to the late Minister's valuable services, was duly prepared and officially forwarded to Madame Prefontaine.

Following is the Secretary-Treasurer's financial statement:

Balance from last report	$1,128.62
Interest	21.56
Membership dues	1,695.35
Receipts from special extra assessment upon the grain section	329.23
	$3,174.76
Disbursements, including special disbursements made on account of grain section	$1,867.45
Balance on hand	$1,307.31

The following were appointed a committee on aids to navigation: A. A. Wright, C. J. Smith, D. Noonan, R. W. Shepherd, L. Henderson, T. Donnelly, S. Crangle, H. H. Gildersleeve, and the President. To this committee were referred a number of petitions for lights, buoys and harbor improvements, and the committee was instructed to prepare and present a memorial setting out the improvements considered advisable.

It was resolved that hereafter the report of the executive committee be printed and distributed at least 10 days prior to the annual meeting.

C. H. Nicholson introduced the subject of the proposed legislation regarding the observance of the Lord's Day, and asked for careful supervision of the matter by the Association in the interests of navigation. The question was referred to the executive committee with instructions to take such action as might be deemed proper.

The qualifications of second-class engineers were discussed by several members, and on request E. Adams addressed the meeting, making the statement that while the rules apparently excluded time spent in fitting out and laying up for counting in the period of service required in the engine room, due regard would always be given to the special circumstances of each case and the rules would not be permitted to work hardship by the exclusion of time spent in gaining experience in actual bona fide service whether the vessel was then actually running or not.

The bill to amend the act respecting the certificates of masters and mates was also discussed, and Capt. Demers addressed the meeting on the subject, promising consideration for the views enunciated by various members in the course of the discussion.

It was resolved that the thanks of the Association be tendered to the Government for the efforts in keeping open the harbors of Fort William and Port Arthur until the close of navigation, and that in accordance with the resolution already presented a further request be made that these harbors be opened in the spring as soon as the opening of the Sault Canal and St. Mary's River.

The following executive committee was elected: J. A. Cuttle, A. A. Wright, A. B. MacKay, T. Donnelly, C. J. Smith, S. Crangle, H. H. Gildersleeve, J. H. Hall, D. Murphy, F. Plummer, G. T. Marks, and J. P. Kavanagh.

At a subsequent meeting of the executive committee the following officers were elected: President, J. A. Cuttle; 1st Vice-President, C. J. Smith; 2nd Vice-President, G. T. Marks.

In the afternoon a large deputation of members, accompanied by W. Harty, M.P., and R. Bickerdike, M.P., interviewed the Minister and Deputy Minister of Marine, and asked for favorable consideration for the memorial which would be presented for new aids to navigation. They also renewed the request for the abolition of the hospital tax or sick mariners' dues, pointing out as well the terms of the U.S. statute, which imposes a tonnage tax in U.S. ports, and petitioning for action in accordance with the clause in the report of the executive committee where the matter is referred to in detail. Memorials already presented by the Association and by the Shipping Federation were also referred to and the Minister promised all his consideration.

The Deputy Minister of Railways and Canals was also waited upon by the same deputation and interviewed regarding the advertised closing of Cornwall canal during April, the electric traction system at Cornwall canal, the protection of bridge piers, etc., in Lachine canal, and the opening of Farran's Point lock on Sunday, and also, if possible, the guard lock of the Cornwall canal. The deputation learned that upon the memorial of the Association already presented instructions had been given to hasten the work upon the canals and let in water again at the earliest possible date, and that the opening of navigation would not be delayed. It also appeared that the electric traction question was already before the Privy Council as a result of the Association's request, and that modification of the order might be expected shortly. The other matters presented were noted and promised consideration.

The Minister of Marine directed the ice-breaking str. Montcalm recently to proceed to the Gulf of St. Lawrence to locate ice and warn incoming steamers in regard thereto by means of wireless telegraphy.

Application is being made at the current session of the Dominion Parliament for an act incorporating the Canadian Lloyds, with a capital of $250,000 and offices at Montreal, to carry on a general insurance business. The provisional directors are: R. Bickerdike, J. H. B. Christie, F. A. C. Bickerdike, D. A. Campbell and J. Gowan, Montreal.

Two bills affecting marine interests, which have been before the Dominion Parliament in almost identical terms for several years past, have again been put forward by their sponsors, L. McCarthy and E. A. Lancaster. The first is a proposed amendment to the Steamboat Inspection Act, respecting certificated engineers, and the second is in respect to the examination of masters and mates. Both have been given a second reading and have been referred to a special committee of which A. K. Maclean, M.P. for Lunenburg, N.S., has been elected chairman.

The chairman of the Board of Steamboat Inspection, of the Department of Marine, has given instructions to the various inspectors in regard to the exemption of vessels arriving in Canada from the application of hydraulic pressure in the annual examination made under the Canadian inspection rules. The instructions are to the effect that in cases where they had the assurance that the cold water test had been applied by competent authorities to the boilers of any vessels during the previous eight months, if in their opinion, after examination, they thought it advisable to dispense with the cold water test, they could do so.

E. N. Lewis, M.P. for West Huron, delivered a lengthy speech in the House of Commons, April 4, on marine matters. He called attention to the need of the proper inspection of barges and similar craft, not only on the Great Lakes, but upon the Atlantic coast. There was great need for the adoption of a load line for all classes of vessels; for providing for the prevention of undermanning vessels, and for putting a stop to overloading. The Minister of Marine pointed out that if the suggestions made by Mr. Lewis were carried out it would entail large additional charges on the transportation companies, which, in the face of the heavy competition of railways, it might not be advisable to impose. The questions, however, were of considerable importance.

River and Lake Officers for 1906.

The following appointments have been made by the principal navigation companies engaging in the St. Lawrence River, Great Lakes and other vessel routes for their various steam and sailing vessels, tugs and barges for the season of 1906. In the first column is given the name of the vessel, in the second that of the captain, and in the third that of the chief engineer:

CALVIN CO., GARDEN ISLAND, ONT.

Bluebell	John Dix	B. Lappen
Burma (barge)	John Ferguson	
Ceylon (schr.)	Jos. Achee	
Chieftain III	(not appointed)	T. Gray
D. D. Calvin	H. N. Smith	Jno. Kennedy
Frontenac	C. E. Phelix	M. Dorey
India	C. Coons	F. C. Smith
Parthia	D. Lefave	G. Sauve
Simla	A. H. Malone	R. H. Veech
Wm. Johnston	J. Harris	T. Campeau

CANADA ATLANTIC TRANSIT CO., MONTREAL

Arthur Orr	H. Jaenke	J. Murnan
Geo. N. Orr	W. Baxter	H. H. Evans
Kearsarge	J. McNiel	A. A. Marion
Ottawa	A. Birnie	W. Paus

CANADIAN LAKES AND OCEAN NAVIGATION CO., TORONTO

A. E. Ames	E. L. Stephen	S. Gillespie
H. M. Pellatt	W. H. Anderson	W. Byers
J. H. Plummer	Jas. Black	R. Chalmers
Scottish Hero	(not appointed)	R. Duguid
Turret Cape	A. McIntyre	W. H. Durham
Turret Chief	M. McPhee	A. E. Kennedy
Turret Court	P. McIntyre	C. J. McSorley

CENTRAL CANADA COAL CO., BROCKVILLE, ONT.

Samuel Marshall	Hy. Russell	H. J. Crow

CHARLOTTETOWN STEAM NAVIGATION CO., CHARLOTTETOWN, P.E.I.

Empress(building)	A. Cameron	J. A. Rowe
Northumberland	A. Maclean	C. Cuming
Princess	A. Macleod	(not appointed)

DESERONTO NAVIGATION CO., DESERONTO, ONT.

Arctic	W. J. Daly	W. Turner
Armenia	A. Barnhardt	J. Jamieson
Ella Ross	D. B. Christie	M. J. McFaul
Jessie Bain	M. Palmateer	M. Toppings
Ranger	H. Burnip	J. McFaul
Recruit (schr.)	D. McVicker	
Reliance	Jas. Dougherty	Jno. Toppings
Rescue	T. Lynch	O. Flood
Resolute	J. Gowan	J. Harrison
Wherenow	J. Comeau	T. Tomlin

FARRAR TRANSPORTATION CO., COLLINGWOOD, ONT.

Newmount	F. A. Bassett	D. McLeod

HAMILTON AND FORT WILLIAM NAVIGATION CO., HAMILTON, ONT.

Donnacona	J. W. Mawdesley	J. S. Duguid
Strathcona	J. A. Irving	W. Harman

HAMILTON AND MONTREAL NAVIGATION CO., HAMILTON, ONT.

Dundurn	J. Malcolmson	W. Adams

G.T.R. CAR FERRIES, WINDSOR, ONT.

Great Western	M. Bousette	
	A. Baillorgeon	W. Belsom
Lansdowne	F. D. Forrest	
	J. Jackson	J. S. Taylor
Huron	A. Oldenburg	J. Ladds

GREAT LAKES AND ST. LAWRENCE TRANSPORTATION CO., CHICAGO, ILL.

Crerar	H. Hutchins	J. Busted
Dalton	J. Rinn	G. L. Barnhart
Davidson	H. J. Hagan	W. Norcross
Howe	F. C. Pratt	R. W. Hunter
Keefe	D. Barry	G. Winters
Lambert	D. T. Sullivan	J. McCaffrey
Marshall	J. A. Duncanson	A. W. Scott
Parent	G. A. Talbot	C. T. Kidd
Sharples	F. L. Meno	W. Newcomb
Wallace	R. Gleason	G. E. Willard

HAMILTON STEAMBOAT CO., HAMILTON, ONT.

Macassa	R. Cooney	O. Flummerfelt
Modjeska	P. Walsh	W. Noonan

INTERPROVINCIAL NAVIGATION CO., CAMPBELLTON, N.B.

Lady Eileen	J. H. Crossley	R. Currie

LAKE ONTARIO AND BAY OF QUINTE STEAMBOAT CO., KINGSTON, ONT.

Aletha	J. A. Roys	J. Noble
Caspian	W. Bloomfield	O. J. Hickey
North King	J. Jarrell	G. Boyd

MACKAY AND MAGEE, HAMILTON, ONT.

Golspie	H. N. McMaster	H. A. Derouin

T. MARKS & CO., TORONTO

Neebing	J. Ewart	A. T. Foote

MERCHANTS' LINE, MONTREAL

Bickerdike	J. McMaugh	E. Hamlin
City of Montreal	A. Lefebre	F. Hamlin
Cuba	A. Monpetite	J. Belanger

MIDLAND NAVIGATION CO., MIDLAND, ONT.

Midland King	W. H. Featherstonhaugh	E. Abbey
Midland Queen	F. Burke	G. Smith

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"	"	4.50	"	"	107.85,	" "	36.73	" "	90.00
"	"	5.00	"	"	119.85,	" "	40.81	" "	100.00
"	"	5.50	"	"	131.80,	" "	44.89	" "	110.00
"	"	6.00	"	"	143.80,	" "	48.98	" "	120.00
"	"	6.50	"	"	155.80,	" "	53.05	" "	130.00
"	"	7.00	"	"	167.80,	" "	57.16	" "	140.00
"	"	7.50	"	"	179.75,	" "	61.22	" "	150.00
"	"	8.00	"	"	196.70,	" "	65.28	" "	160.00

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Export Elevator, Buffalo, N.Y.	"	1,000,000	"
J. R. Booth Elevator, Depot Harbor, Ontario	"	**1,000,000**	"
Southern Pacific Terminal Co.'s Elevator, Galveston, Texas	"	1,000,000	"
Erie R. R. Transfer & Clipping House, Chicago, Ill.	"	100 cars in 10 hrs.	
Manchester Ship Canal Co.'s Elevator, Manchester, Eng.	"	**1,500,000**	"
Burlington Elevator Co., Peoria, Ill.	"	500,000	"
Canada Atlantic Railway Elevator, Coteau Landing, Que.	"	**500,000**	"
Northern Grain Co., Manitowoc, Wis.	"	1,350,000	"
Union Elevator, East St. Louis, Ill.	"	1,100,000	"
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Minitaga	G. Kinnel	J. Kinnel
Navela	J. Tyndall	F. Goodwin
Reliance	R. Burke	J. McGregor

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Scguin	J. Wilson	C. Robertson

MONTREAL TRANSPORTATION CO., MONTREAL

Advance	W. Daoust	W. Spencer
Bothnia	J. Doyle	T. Hazlett
Bronson	C. Martin	G. Fleming
Emerson	J. Murray	G. Henderson
Fairmount	P. C. Telfer	W. Newbold
Glide	W. Murphy	L. E. Spencer
Hamilton (barge)	J. Kirkwood	
Jessie Hall	T. Connors	(not appointed)
Mary P. Hall	T. Murphy	F. Henderson
Melrose (barge)	J. Hurley	
Quebec (barge)	R. A. Davey	
Rosemount	J. Wood	R. Taylor
Thomson	Jos. Murray	R. Hepburn
Westmount	A. Milligan	G. Fryar

NEW ONTARIO STEAMSHIP CO., HAMILTON, ONT.

Neepawah	O. Patenaude	A. Leitch
Wahcondah	H. Zealand	J. Waller

NIAGARA NAVIGATION CO.

Cayuga	J. McGiffin	G. M. Arnold
Chicora	C. J. Smith	W. A. Black
Chippewa	W. H. Solmes	H. Parker
Corona	R. Clapp	A. J. Woodward
Ongiara	H. J. McIntyre	R. Marshall

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Garden City	D. Enright	J. H. Brown
Lakeside	N. J. Wigle	T. Crossley

NORTHERN NAVIGATION CO., COLLINGWOOD, ONT.

City of Midland	A. M. Wright	S. Burgess
City of Toronto	P. Dunsmore	J. T. Myler
City of Windsor	F. G. Moles	I. Boyd
Germanic	W. G. Cox	J. Austin
Huronic	R. D. Foote	C. Brisbin
Majestic	G. H. Playter	W. Whipps
Monarch	E. Robertson	S. Beatty
Saronic	A. L. Campbell	H. Myler

ONTARIO AND QUEBEC NAVIGATION CO., PICTON, ONT.

Aberdeen	M. Hicks	D. S. Sinclair
Alexandria	E. B. Smith	T. J. S. Milne
Isabella Reid (bg.)	T. Bennetts	
Lloyd S. Porter	M. Heffernan	L. Smith
Niagara	W. Skillen	C.A.McWilliams
Rob Roy (barge)	S. Lebeouf	
Water Lily	W. Dalmage	P. Davis

JAMES REID, SARNIA.

Belle Hanscomb (schr.)	L. McParland	
Kelderhouse (schr.)	A. D. McLean	
James Reid (tug)	H. B. Reid	W. Oakes
J. M. Diver (tug)	W. H. Reid	F. Rawson
Manistique (tug)	J. E. Cooper	M. Jameson
Ottawa (tug)	J. T. Reid	W. King
Salvor (tug)	C. Hill	J. Rushford
Sarnia	J. Rigney	J. Taylor
Winslow (tug)	A. Harris	J. Skagel

RICHELIEU AND ONTARIO NAVIGATION CO., MONTREAL.

Beaupre	C. Gouin	F. X. Lacroix
Belleville	J. P. Stephenson	W. S. Parker
Berthier	A. Robillard	E. Denis
Boucherville	J. E. Brossard	C. Hamel
Brockville	J. McGrath	J. W. Haylett
Chambly	L. Valois	E. Beaucage
Hamilton	(not appointed)	B. Pintal
Kingston	H. Esford	A. R. Milne
Laprairie	P. McLean	A. Gendron
Longueuil	J. Mandeville	H. Noel
Montreal	F. X. La France	G. Gendron
Mouche a Feu	J. Crepeau	J. St. Michel
Murray Bay	J. Simard	N. Beaudoin
Picton	D. F. Mills	A. de Martigny
Prescott	E. A. Dunlop	A. Crepeau
Quebec	L. O. Boucher	I. Gendron
St. Irenec	J. E. Dugal	J. Hamelin
Tadousac	A. Fortin	M. Latullippe
Terrebonne	C. Laviolette	G. Bouret
Three Rivers	J. Faubert	J. Matte
Toronto	E. A. Booth, jr.	J. Conlin

RIDEAU LAKES NAVIGATION CO.

Rideau King	E. Fleming	G. Tuttle.
Rideau Queen	W. Fleming	Jos. Noonan.

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Iroquois	W. H. Wright	W. Harwood
Rosedale	P. J. Shaw	J. Findlay
W. D. Matthews	J. Ewart	E. J. O'Dell

ST. LAWRENCE RIVER STEAMBOAT CO., KINGSTON, ONT.

America	Jas. F. Allen	M. Tetro
Pierrepont	(not appointed)	W. Kelly

STAR LINE STEAMSHIPS, ST. JOHN, N.B.

Champlain	C. J. Wasson	B. C. Estabrooks
Majestic	C. H. McLean	(not appointed)
Pokanokct	J. Gilchrist	G. H. Burpee
Victoria	C. C. Taylor	W. J. Barton

SYLVESTER BROS., TORONTO.

St. Louis (schr.)	Geo. Williamson

THOUSAND ISLANDS STEAMBOAT CO., KINGSTON, ONT.

Islander	C. H. Kendall	J. H. Mawdesly
New Is. Wanderer	W. C. Hudson	N. Larson
New York	(not appointed)	(not appointed)
St. Lawrence	M. D. Estes	B. Farrell
Ramona	J. Bertrand	W. H. Baxter

TURBINE STEAMSHIP CO., HAMILTON, ONT.

Turbinia	B. W. Bongard	W. A. White

VICTORIA HARBOR LUMBER CO., TORONTO.

Charlton	D. Burke	Jas. Readman
Reginald	W. J. Madden	J. Gunn

WALPIE & WRIGHT, TORONTO.

Tadousac	S. Hall	J. G. Fisher

JAMES T. CONLON, THOROLD, ONT.

Erie	P. Sullivan	P. Quinn
F. L. Danforth (schr)	T. McCarthy	

J. B. FAIRGRIEVE & CO., HAMILTON, ONT.

Arabian	R. McMaugh	W. H. Cunningham.

Notices to Mariners.

The Department of Marine has issued the following notices to mariners:

No. 18. Mar. 6.—Ontario—52. Lake Ontario, Simcoe Island, Nine Mile Point, change in character of light.

No. 19. Mar. 10.—New Brunswick—53. South Coast, Bay of Fundy, Lepreau Bay, off Stay Point, change in character of buoy. Nova Scotia—54. West coast, Yarmouth fairway whistling buoy to be replaced by gas and whistling buoy.

No. 20. Mar. 13.—British Columbia—55. Vancouver Island, west coast, Clayoquot Sound, Templar channel, Leonard Island, fog alarm established.

No. 21. Mar. 14.—Nova Scotia—58. South coast, St. Mary River, the Budget (Horse shoal), lighthouse established. 59. South coast, Fisherman harbor, lighthouse established.

No. 22. Mar. 19.—Ontario—60. Lake Ontario, Toronto harbor eastern entrance, tower provided for inner range light. 61. Lake Ontario, Toronto, speed of vessels in harbor.

No. 23. Mar. 23.—New Brunswick—62. South coast Bay of Fundy, Passamaquoddy Bay, St. Andrew's bar, Navy Island, lighthouse placed on cribwork foundation. Nova Scotia—63. South-east coast, Chedabucto bay, Guysborough harbor, lighthouse rebuilt.

No. 24. Mar. 26.—British Columbia—64. Hero Strait, Discovery Island, intended change in character of light. 65. Vancouver Island, east coast, Stuart channel, Crofton, Osborn bay, Shoal Islands, light established.

No. 25. Mar. 29.—Labrador—66. Strait of Belle Isle, Amour point, change in fog alarm.

The following has been issued by the U.S. Hydrographic Department:

No. 13. Mar. 31.—463. Lake Superior, Apostle Islands, rock shoal, wreck disappeared.

The Lake Freight Situation.

Our Winnipeg correspondent writes as follows: The backward weather of the past month has somewhat upset the calculations of the various bulk freight carriers on the lakes as to an early opening of navigation, Sault Ste. Marie being the most backward, and instead of everything being in full swing on April 1, it was not until the 14th that the Sault opened, although the twin ports of Fort William and Port Arthur had been opened for a week prior to that date, owing to the excellent work of the ice breaker, Jas. Whalen, now located there, and whose work has put at rest all doubts as to her ability to open the ports early and keep them open as late as necessary.

Opening rates on wheat were 2¼c. to Georgian Bay and Lake Huron ports, 2c. to Buffalo, and from 6½ to 7c. Montreal, but in the Buffalo case the rates were made by United States boats, Canadian vessel owners asking 2½c. for that port, and the difference of ¼c. between Georgian Bay ports and Buffalo has aroused some feeling on the part of grain shippers who claim that it is a decided discrimination in favor of Buffalo as against the Montreal gateway, as the St. Lawrence is already burdened with much higher insurance rates than the port of New York.

The Steel Trust, which is the largest shipper of iron ore on the Great Lakes, has been very backward in chartering outside tonnage for the movement of its ore for the coming season, and this has had its effect on the general rate situation by forcing vessel owners who have in the past depended altogether on the ore business to keep their vessels engaged in the grain trade, which accounts for the opening rate of 2c, to Buffalo named by United States vessels, and the outlook now is that rates on wheat will go considerably lower if no improvement shows in the ore trade.

Georgian Bay Ship Canal Survey.

The interim report of A. St. Laurent, Chief Engineer of the Georgian Bay Ship Canal surveys, has been presented to the Government. It covers the work of the preliminary survey from the mouth of the French River, through Lake Nipissing, across the height of land to the Mattawa River, and along the Ottawa River to Montreal, a distance of 425 miles. The proposed route was divided into three districts, Nipissing, Ottawa, Montreal. On the western end the survey has proceeded on the assumption of a summit level at or about Trout Lake elevation. This was done because the raising of Lake Nipissing 16 or 20 feet, as proposed in the old surveys, is considered altogether impracticable in view of the settlement around the lake, involving as it would the flooding of a portion of North Bay and also the main line of the C.P.R. On the other hand the cutting down of the whole summit level to Lake Nipissing level would entail a very large expenditure to give a first-class canal for large vessels. It is mentioned that the water supply at the height of land has been studied for a possible traffic of from 10,000,000 to 20,000,000 tons. The investigation so far, though not complete, seems to indicate that the supply from the immediate watershed of Trout, Turtle and Talon Lakes at the height of land will not be sufficient for the amount of traffic assumed, but the possibility of getting an extra supply of water from an adjacent watershed and by impounding water is now being looked into with every chance of meeting with favorable conditions. The engineers have completed their field work, and are at work on the plans, profiles and estimates of cost.

Atlantic and Pacific Ocean Marine.

The derelict British steamship Dunmore, which was reported drifting in the route of the trans-Atlantic steamships in Feb., is reported to be a danger to navigation.

The C.P.R. SS. Empress of Britain was given a trial trip at Glasgow, Scotland, April 17, when a speed of 19¾ knots an hour was developed. She will sail from Liverpool on the first trip May 5.

Following are the directors of the Quebec Steamship Co. elected at the annual meeting held April 3: W. Price, J. C. Thomson, A. F. Hunt, W. Simons, G. T. Davie, J. T. Ross, Hon. J. Sharples, Quebec; E. H. Botterell, M. N. DeLisle, Montreal.

It has been announced in London, Eng., that the accommodation on the C.P.R. steamers Empress of Britain and Empress of Ireland has been nearly all taken up for the initial trips. The first named is due in Quebec May 11.

The London, Eng., Salvage Co. has undertaken the task of floating the Allan Line str. Bavarian, which stranded on Wye Rock, near Grosse Isle quarantine station, Nov. 3, 1905. Preliminary operations have been commenced.

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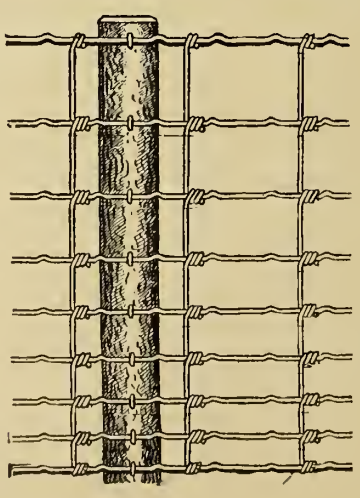

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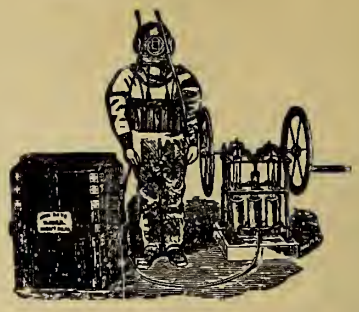

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The Allan Line turbine steamer Virginian made a record run from Moville, Ireland, to Halifax on her last trip, and also cut down the time for the eastern run on the return voyage. The time to Halifax was 6 days, 6 hours, and for the run to Moville, 6 days, 4 hours.

A London, Eng., cable dated April 6 states that the admiralty subsidy to the C.P.R. steamers Empress of India, Empress of China, and Empress of Japan as armed cruisers has expired. The amount of the subsidy was $300,000 a year. Negotiations for its renewal are said to be in progress.

The Secretary for the Colonies, a London, Eng., cable states, has called a conference with New Zealand and Australia regarding shipping legislation. He declines to include in the scope of the conference the service between Canada and Australia, although the shipowners are said to be anxious to have it discussed.

Judgment was delivered in the Admiralty Court at Quebec, April 2, in the case of the cross actions arising out of the collision between the Norwegian SS. Tordenskjold and the German SS. Euphemia in the St. Lawrence River in the summer of 1905. The court found the Tordenskjold to blame and directed the registrar and assessors to fix the amount of damages which her owners will have to pay.

T. Harling of the Quebec Transportation Co. states that he has secured the necessary tonnage for the carrying out of the agreement with the Quebec Harbor Commissioners to establish a direct line of steamers between Quebec and British ports. It is proposed to give a fortnightly service, and to give out the names of the steamers and times of sailing at an early date. The service is to be inaugurated early in May.

Another steamer was added at Glasgow, Mar. 23, to the fleet of the Ocean Steamship Co., trading between Liverpool and Vancouver, B.C., and between Vancouver and the Orient, when the hull of the Cyclops was launched. The principal dimensions of the Cyclops are: length, 500 ft.; breadth, 58 ft.; depth, moulded 42.6 ft. She will be of about 9,000 gross tons, and is built on the same general lines as the Bellerophon and Teucer, described in our April issue.

The following appointments of captains of the C.P.R. trans-Atlantic steamers have been announced: Capt. Forester, heretofore of the Mount Temple, to the Lake Champlain, succeeding Capt. Stewart, appointed to the Empress of Britain; Capt. McNeill, heretofore of the Montrose, to the Mount Temple; Capt. Moore, heretofore of the Milwaukee, to the Montrose. It is expected that Capt. Evans of the Montfort will be appointed to the Lake Erie in succession to Capt. Carey, appointed to the Empress of Ireland.

The contract for the carriage of the mails between Canada and Great Britain for five years, the terms of which have already been published, has been signed by the Dominion Government and the Allan Steamship Co. Under the terms of the contract the company has to provide two additional 18 knot steamers for the service. On April 11 it was announced in Montreal that an arrangement had been reached between the Allan Steamship Co. and the C.P.R., under which the mail contract will be divided, the fastest steamers of each company being utilized so that an even service may be assured.

W. Power, M.P., of W. J. Sharples & Co., Quebec, who recently returned from Great Britain, stated in an interview that the Canadian lumber trade with the mother country in the future will be much diminished. England could obtain her supplies of lumber cheaper in Switzerland and Norway than in Canada, whilst the United States dealers were offering higher prices for Canadian lumber than could be obtained in England. The marine interests of Canada, he said, would now have to depend for cargoes and shipments to European markets on the products of the country, grain, cheese, butter, etc. The heretofore great lumber trade of the St. Lawrence to the mother country was a thing of the past.

A settlement of the action of Petersen against the Armstrong-Whitworth Co., arising out of a contract for a steamship service between Canada and European ports, has been arrived at. W. Peterson secured a contract with the Canadian Government to operate a line of steamers and an agreement was made between him and the Armstrong Co., of Elswick-on-Tyne, Eng., for construction and financing of the line. The Armstrongs subsequently withdrew from the agreement, and the contract with the Canadian Government was never carried out. An action was entered by Wm. Petersen, Limited, for damages, which action was continued by the Official Receiver when the company failed.

Maritime Provinces and Newfoundland.

F. G. R. Bradbury has been appointed Wharfinger of the Government wharf at Sheguiandah, N.S.

The Department of Public Works for Prince Edward Island reports that the str. Elfin has been rebuilt at a cost of $4,000.

The North Sydney Fishing Co. has sold its gasoline motor-driven vessel to C. Darlington, Halifax, N.S., who will use it as a cruising yacht.

W. Snow has been appointed Harbor Master for the port of Marie Joseph, N.S.; M. A. McIsaac, Harbor Master of Big Pond, N.S., and G. J. Locke, Harbor Master of Lockeport, N.S.

We were advised April 13 that nothing definite had been decided in reference to the proposal to sell the Interprovincial Navigation Co.'s str. Lady Eileen and replace her with a larger vessel.

The owners of the schooner Alexander R. have libelled the str. Aranmore for damages owing to the sinking of the schooner in Halifax harbor, April 2. The Alexander R. was built in 1905, and was valued at $3,500.

We have been officially informed that the str. Princess has been sold by the Charlottetown Steam Navigation Co. to the Dominion Government for the fishery protection service in the Gulf of St. Lawrence, and in Labrador waters.

The Plant Line str. Beverley is undergoing an overhaul at Halifax, N.S., prior to taking up her run between that port and Boston, Mass. The company's str. Halifax has returned from Havana, Cuba, where she has been running during the winter

The new str. St. Pierre Miquelon has arrived at the French port and island off the Newfoundland coast, from which she takes her name, and has taken up her run between St. Pierre and North Sydney, Halifax and other ports in N.S. This steamer replaces the Pro Patria, which was lost in 1905.

The Shepody Navigation Co. has elected J. W. Y. Smith a director, and has appointed W. H. Edgett Manager. The directors are completing arrangements for the provision of additional wharfage accommodation at Albert and other points in New Brunswick where the company's str. Wilfred C. calls.

Capt. T. Densmore and Capt. J. Ellis have been appointed pilotage commissioners to succeed A. K. Moore and D. P. Soley, deceased; Capt. S. Wadman and Capt. N. Wadman have been appointed pilotage commissioners to succeed J. F. McKenzie and J. W. Broderick, removed, for the pilotage district of Economy, N.S.

Five Nova Scotian schooners were reported sold in North Sydney to Newfoundland owners recently, and two other schooners are under option of sale also to Newfoundland people. This demand has served to stimulate shipbuilding at home, and it is stated that 97 vessels, ranging from 40 to 250 tons register, are now building or ready for launching in various parts of Newfoundland.

Job Bros., St. Johns, Nfld., owners of the str. Neptune, which was chartered for patrol duty in the Arctic Ocean by the Dominion Government, have a claim of $5,000 against the Government in connection therewith. The matter is being settled by arbitration, W. F. Schmidt, representing the Government; W. R. Warren, the owners of the steamer, and D. M. Browning, K.C., is the third arbitrator.

The Crystal Stream Steamship Co. has been incorporated under the New Brunswick Companies' Act, with offices at St. John, N.B., and a capital of $24,000 to acquire the steamer Crystal Stream, or other steamer, and to carry on a general navigation business on St. John River. The provisional directors are Mrs. S. A. Purdy, Miss M. Beverley, Miss A. M. Purdy, D. J., J. C. and W. G. Purdy, St. John.

The new steamer for the Charlottetown Steam Navigation Co., Charlottetown, P.E.I., was launched at Newcastle-on-Tyne, Eng., Mar. 26, and was christened Empress by Miss Martin, of Abingdon. The owners were represented at the launch by Capt. Cameron and J. A. Rowe, the master and chief engineer of the new steamer; and R. Anderson, Renfrew, superintendent of construction. W. Richards, one of the directors, was to leave Charlottetown, April 21, for Newcastle, to take over the steamer.

The investigation into the loss of the barge Rembrandt has been concluded and the finding of the court was filed April 2. The barge belonged to the Dominion Coal Co., and was being towed along the Nova Scotian coast by the tug Douglas H. Thomas in Nov., 1905, when she was lost in a gale. The court found that there was no Government inspection or supervision of barges on the eastern coast; that they were usually old vessels cut down as to sails and without self-propelling power, and provided with a crew just sufficient to steer, keep things snug and do the pumping with the donkey engine. The crew of a drifting barge in a storm or on a lee shore, said the court, is the most utterly helpless of our seafaring population. The court recommended that Capt. W. P. Cann, of the tug, be censured for not cutting the tow line and keeping his vessel in touch with the barge, and for not informing the Dominion Government str. Lady Laurier of the circumstances the day after the barge got adrift. The court also recommended that the Government provide for an adequate inspection of seagoing barges in future.

Province of Quebec Marine.

P. Desjardins has been appointed Government wharfinger at Desjardins, Que.

The Quebec Harbor Commissioners have had a consultation with the Dominion Government in connection with improvements at the harbor.

Navigation was opened at Montreal on Mar. 31 in 1898, and on Mar. 30 in 1878, which are the earliest dates recorded during the last 56 years. The earliest first arrival from the sea in the same period was April 17 in 1902, and the latest was May 20, in 1854.

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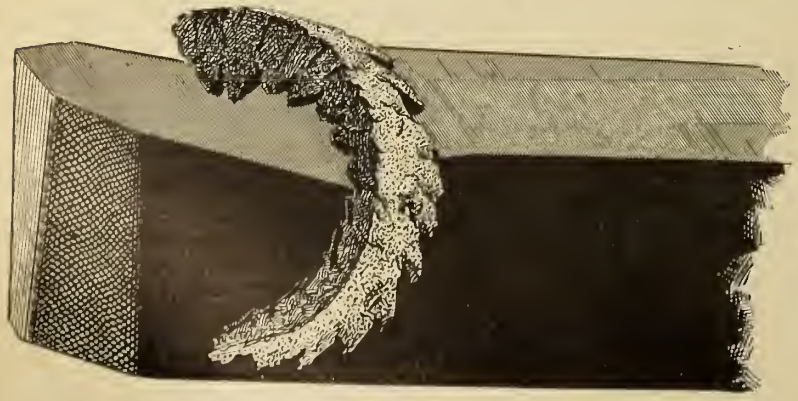

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The Lake St. John and Saguenay Navigation Co. is the title under which the new navigation company, to which reference was made on pg. 101 of our Feb. issue, has been incorporated under the Quebec Companies' Act. The capital is fixed at $25,000, and the chief offices are at Quebec.

A Quebec report states that the Richelieu and Ontario Navigation Co. has decided to enlarge the str. Quebec, now on the Montreal-Quebec run for the season of 1907. The steamer will be cut in two amidships and a new section of 50 ft. added. The work will be done at the company's works at Sorel, Que.

Permission has been granted to the steamship companies to use the lower floors of the six new steel sheds at present under construction in Montreal harbor during the current season of navigation. The contractors, P. Lyall & Sons, will proceed with the completion of the upper floors during the summer.

The str. Bickerdike, which was formerly known as the Arabian, is owned by the Montreal and Great Lakes Steamship Co., and will be operated during the current season of navigation in the Merchants Line between Montreal and Lake Superior ports, G. E. Jaques & Co. being the managers at Montreal. She has a cargo capacity of about 1,500 tons.

The Montreal and Great Lakes Steamship Co. has been incorporated under the Dominion Companies' Act with a capital of $90,000 and offices at Montreal, to carry on a general navigation business. The provisional directors are: R. Bickerdike, H. Munderloh, A. Lefebvre, C. A. and M. Jaques, Montreal; J. H. Hall, Ottawa; S. Samuel, G. Somerville, Toronto.

The Quebec Transportation and Forwarding Co. has been incorporated under the Dominion Companies' Act with a capital of $40,000 and offices at Quebec, to carry on a general forwarding and carrying business, and in connection therewith to own or lease wharves, warehouses, steam and other vessels. M. J. and W. J. Hackett, J. S. and H. L. Thom, Quebec; C. E. Brodie, Levis, Que., are the provisional directors.

The C.P.R. put a large gang of men at work, April 4, upon the improvements necessary at the Louise docks, Quebec, for the accommodation of its steamship traffic there. Railway tracks are being laid on the north embankment wall of the dock, and a trestle connection is being constructed to Prince Edward St. Pending the completion of the work the company will have accommodation at the Carey wharf, and at the breakwater landing and sheds.

Six actions are pending before the Admiralty Court in connection with a collision in Montreal harbor in the fall of 1905, in which a dredge belonging to the Harbor Commissioners was sunk and another badly damaged. The total amount of the damages claimed in the several actions is $300,000. The Harbor Commissioners seek to recover damages from the owners of the str. Universe, the tug Bay State and the barges Bath and Berkshire; the owners of the barges seek to recover damages from the owners of the Universe; and owners of the Universe against the owners of the Bay State and the barges. Justice Dunlop has adjourned the case to consider certain questions raised, and it will be resumed at Quebec at a future date.

The Montreal Harbor Commission appears to be in a moribund condition. One of the commissioners is reported to have stated Mar. 30 that the life of the body was then only of such a short duration that it did not matter what they did. R. Bickerdike, one of the Government appointees, resigned office April 3, while A. Racine and E. H. Lemay, two other Government appointees, were reported to have sent their resignations to Ottawa April 6 and 8 respectively. The Montreal harbor reorganization bill was laid before the House of Commons, April 19, by the Minister of Marine. The reorganization, he said, was another step towards giving effect to the idea that Montreal should be made more and more a national port. There are now 11 commissioners, of whom six are appointed by the Government, but the new bill provides for three commissioners only to be appointed by the Government, who are to be paid a salary out of the revenues of the harbor and who will be required to give nearly all, if not all, their time to the duties. The old board will continue in office until the proclamation putting the new constitution into force is issued.

Ontario and the Great Lakes.

J. D. Hall has been appointed Harbor Master at Parry Sound, Ont.

H. A. Hawgood, President of the Hawgood Transit Co., died suddenly at Cleveland, Ohio, April 3, aged 60.

The Ontario Government has decided to sell its fisheries protection cruiser Gilphie, and replace it with a faster and more modern vessel.

The town of Fort Frances is applying for power from the Ontario Legislature authorizing it to construct a dock in the Rainy River at that point.

The repairs to the Rideau Canal have been completed and it was announced that navigation between Kingston and Ottawa would be opened for the season, May 1.

The str. Turbinia left Kingston, Jamaica, Mar. 29, and was expected to reach Hamilton Ont., at the end of April, to begin her summer run between that port and Toronto.

The twin screw steamer now under construction for the Muskoka Lakes Navigation and Hotel Co. will be named Sagamo, and is expected to be running by June 15.

A steamer named the Kathleen has been built at Rideout Bay, Kenora, Ont., for Dowsett and Robinson, and is intended for freight and passenger trade on Winnipeg River.

The Dominion cruiser Vigilant was given an overhaul at a Detroit, Mich., shipbuilding yard, prior to starting out on her season's work in the fisheries protection service on Lake Erie.

The tug James Whalen was employed at the beginning of April to break up the ice in the harbor at Port Arthur, Ont. She broke through ice varying in thickness from 25 to 32 inches.

The str. Kaministiqwia was burned to the water's edge at her dock Port Arthur, Ont., April 2. She was valued at $12,000 and was insured for $5,000. It is proposed to rebuild at once.

The str. Resolute and barge Recruit of the Deseronto Navigation Co.'s fleet have been sold to Haney and Miller, Toronto. It is not the intention of the company to replace them at present.

The Canadian Lake and Ocean Navigation Co. has leased the west side of the wharf at Block D, Harbor Square, Toronto, and the freight shed thereon, at $3,500 for the current year from the city council.

The Detroit-Cleveland Navigation Co. has given orders for the construction of a side-wheel steamer 402 ft. long, with 350 staterooms, a carrying capacity for 4,500 passengers and 1,000 tons of cargo.

J. C. T. Cochrane, who died at Brockville, Ont., April 8, aged 88, was appointed Lloyds' agent at Quebec in 1853, and was subsequently departmental agent for Crown Lands. He retired from active life in 1872.

The Toronto Harbor Commissioners have amended the by-law affecting the speed of vessels entering the harbor so as to permit them to enter at the rate of seven miles an hour instead of four as formerly.

A freight and passenger steamer for J. Perks & Sons was launched at Meaford, Ont., April 16, and was named City of Meaford. It is expected the new steamer will make her first trip early in May.

The contracts for the harbor works at Port Burwell and Rondeau, Ont., which were let to the Pacific Construction Co. at $72,500 and $110,000 respectively, have been transferred to Haney & Miller, Toronto.

The Sarnia Transportation Co. has purchased the str. Lake Michigan from the Hamilton and Montreal Navigation Co. (R. O. and A. B. Mackay, Hamilton, Ont., Managers), by which she was operated during 1905.

A. Kirby, engineer of the str. Juno, was badly scalded by steam owing to the bursting of a defective joint. The accident took place April 14 on board the steamer at Windsor, Ont., where she was being fitted out for the season.

The Lake Seamen's Union has made an agreement with the Lake Carriers' Association respecting the wages schedule for 1906. The rate will be the same as last year, but there will be some increases in the pay for overtime.

Navigation was opened between Toronto and Port Dalhousie Mar. 28; on the St. Lawrence at Brockville, Ont., April 2; Fort William and Port Arthur, April 11; through the Welland Canal, April 15; and on Georgian Bay, April 16.

The winter marine school at Kingston, Ont., was closed April 3. Over 100 mariners were in regular attendance during the winter, and at the closing lecture an address of appreciation was presented to Capt. T. Donnelly, who had been in charge.

The Admiralty Court sitting at Toronto recently found that the steamers J. H. Plummer and Dorothy were both at fault, and that the damages resulting from their collision in the Soulanges Canal must be equally divided and each party must bear its own costs.

The Deseronto Navigation Co. has chartered the Jessie Bain from the St. Lawrence River Steamboat Co., for the Deseronto-Picton run. It has also chartered the Where Now, to take the run between Gananoque, Ont., and Clayton, N.Y., which the Valeria had last season.

J. J. O'Connor has been appointed General Agent at Port Arthur and Fort William, Ont., for all the vessels owned by members of the Dominion Marine Association, and which run to those ports. He will look specially after the loading, quick despatch, etc., of the vessels.

The Dominion Government has had surveys for the proposed canal from Newmarket to the Holland River completed, and an estimate of the cost has been prepared. The Government, it was stated in the House of Commons, did not propose to make the figures public at present.

The Windsor Fish Co. has been incorporated under the Ontario Companies' Act, with a capital of $40,000 and offices at Windsor, Ont., to own and operate boats and vessels of all kinds in connection with its business. A. M. Hungerford, Detroit, Mich., is one of the principal promoters.

The Port Arthur Insurance and Vessel Agency has been incorporated under the Manitoba Companies' Act, with a capital of $25,000 and offices at Winnipeg, to carry on a general insurance and vessel agency business. The provisional directors are T.

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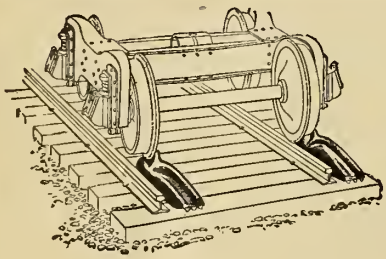

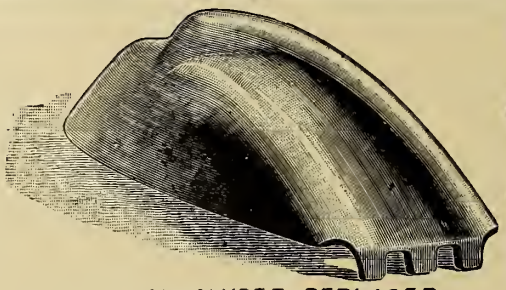

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Orders-in-Council have been passed renaming vessels as follows: paddle wheel steamer Richelieu, official number 33,746, registered at Ottawa, renamed Beauharnois; screw steamer Arabia, official number 121,784, registered at Ottawa, renamed Bickerdike; screw steamer Myles, official number 77,698, registered at Hamilton, renamed Cataract.

A number of the owners of steamers trading on the Great Lakes have agreed to the proposal of the marine engineers that a third engineer be employed on steamers of 3,000 tons and over. The engineers of the Rutland Transit Co.'s Ogdensburg-Chicago fleet went on strike April 5, refusing to fit out the vessels pending an adjustment of the matter.

The Ottawa River Navigation Co., which besides a number of steamers owns the Carillon and Grenville Ry., has been acquired by the Central Ry. of Canada, and a meeting of the shareholders has been called to ratify the sale. R. W. Shepherd, Managing Director of the O.R.N. Co., will remain with the new owners as general manager of the two companies taken over.

The new ferry steamer for the Toronto Ferry Co. was launched at the yards of the Polson Iron Works, Toronto, April 16, and was named Bluebell by Miss Ruth Smith, daughter of R. A. Smith, one of the directors of the company. A description of the ferry was given in our December, 1905, issue. She is expected to be ready to take her place on the service, May 24.

The Ontario Legislature has passed an act dealing with the sale of intoxicating liquors. A clause providing for the issue of licenses for the sale of liquors on board steamers was withdrawn. In the course of the debate, reference was made to the present selling of liquors on steamers, and an opinion expressed that this sale should be put down altogether, or regulated under the act.

The Minister of Public Works informed a deputation from the municipalities in the Trent Canal valley, Mar. 29, that the plans and estimates for the completion of the Trent Valley Canal would be presented to Parliament next session, and that a vote would be asked for the work. The Government had a fixed policy in regard to the canal and would push it forward to completion.

The Canadian Lakes and Ocean Navigation Co.'s str. Scottish Hero will be engaged carrying coal from Port Hawkesbury, N.S., to Montreal, probably to the end of May, when she will be cut in two at Levis, Que., and towed to Lake Erie, where she will be put together again. She will then be put in the regular freight trade on the Upper Lakes with the company's other vessels.

Some children found, April 11, a bottle off Port Robinson, Ont., containing the following words: "On board the Bannockburn; shaft broken; going down. Capt. Woods." Those who knew Capt. Woods well, say the writing is not that of the captain of the Bannockburn, which was lost in a storm towards the end of Nov., 1902, with her crew of 20, and of which no recognizable wreckage has been recovered.

The International Waterways Commission (U.S. section) has given its approval of the plans for the construction of a tunnel under the Detroit River between Detroit, Mich., and Windsor, Ont. A meeting of the Canadian and U.S. sections of the commission was arranged to be held in Buffalo, N.Y., April 26, for the purpose of agreeing upon a joint report relative to the use of water at Niagara Falls for power purposes.

It is reported from Sault Ste. Marie, Mich. that all the land required for widening the ship canal and the construction of larger locks between Lake Superior and Lake Huron, has been secured by the U.S. Government, and that contracts for the work will be let during May. The total cost of the works is estimated at about $8,000,000, but at present it is only contemplated to undertake certain improvements at an estimated cost of $1,020,000.

A reorganization of the Turbine Steamship Co., Hamilton, Ont., has taken place owing to the purchase of a large proportion of the company's stock by shareholders of the T. Eaton Co., Toronto. J. Moodie, jr., who has been President since the organization of the company, is now Vice-President, and the new officers and directors are: President, J. C. Eaton; Secretary-Treasurer, J. Vaughan, director, H. Magee. A by-law changing the head offices of the company from Hamilton to Toronto has been passed.

The following appointments have been made to the engineering staff of the Trent Valley Canal: A. J. Grant, heretofore Resident Engineer Port Colborne harbor works, to be Superintending Engineer, T.V. Canal at Ottawa; L. Linn to be Assistant Engineer at Kirkfield, succeeding R. R. A. Davey, resigned; E. Malone to be assistant to Mr. Linn, succeeding A. Sawers, resigned. E. J. Walsh will remain in charge of the surveys and —. Spence will be retained on the engineering staff in the Peterborough district.

The Ontario Public Works Department reports that the lockages on provincial locks and canals in the Ontario smaller lakes district for the season of navigation of 1905, were:

	Steamers	Small Boats	Scows and Rafts
Port Carling	3,960	821	809
Marys and Fairy Lakes	754	52	261
Magnetawan	907	53	280
Lindsay Lock	144	468	241
Young's Point	1,306	149	497
Balsam River	391	174	151
Totals	7,462	1,717	2,239

A steel steamer for the Dominion Government quarantine service at Grosse Isle, Que., was launched in Toronto, April 7, and was christened Alice by Miss Nicholls, daughter of the President of the Canadian Shipbuilding Co. The steamer has a length of 128 ft. over all, with an extreme breadth of 26 ft. 11 in., and is provided with engines capable of giving a speed of 12 knots an hour. Ample accommodation is provided for the officers and crew, and the special fittings for the quarantine officers are on the most modern lines, and include a complete disinfecting plant. The steamer is expected to be ready to take up her station by the middle of June.

A deputation from Port Hope, Ont., waited on G.T.R. officials at Montreal, April 7, in connection with the proposal to establish a car ferry service on Lake Ontario. The deputation was told that it was the intention to operate the ferry service between Port Hope, Ont., and Charlotte, N.Y., about 60 miles, and it was hoped to have it in operation by Aug. 1. The idea is to avoid the long haul by Niagara Falls, and to relieve the congestion of traffic at the bridge. The Rochester and Pittsburg Ry. is co-operating with the G.T.R. in the project, and it is intended to make daily trips. The G.T.R. proposes to spend $100,000 on yards, etc., at Port Hope in connection with the project. The ferry steamer will be 350 ft. long, 54 ft. wide, and will have a capacity of 28 cars and 1,000 passengers.

Manitoba, Saskatchewan, Alberta, Etc.

Reports from Athabasca Landing, Alta., state that orders for over 50 York boats have been given to be constructed during the current season.

The number of steam and other vessels and boats engaged in the fisheries on Lake Winnipeg during 1905 was 924, of which 24 were tugs or other vessels. The total value of the fleet was $262,700, and the total number of men employed was 2,111.

A side-wheel steamer is under construction at Athabasca Landing, Alta., for Capt. Barber. The hull is 85 ft. over all, 23 ft. beam and of light draught. The engines and boilers have been built in Ontario, and will be carried to Edmonton by rail, and hauled by horses thence to the Landing. The steamer when completed will be taken to Lesser Slave Lake, and will go on a route between Moose Portage on the Lesser Slave River and the Hudson's Bay Co.'s post at Salt Creek.

The Winnipeg, Winnipegosis and Cumberland Steamship Co. operates steamers on Lake Winnipeg between Selkirk and Warren's Landing, 277 miles; between Winnipegosis and High Portage on Lake Winnipegosis; and between High Portage and Sturgeon River on the Saskatchewan River; a total distance of 355 miles. The steamers make connections with the C.P.R. at Selkirk, and with the Canadian Northern Ry. at Winnipegosis. The steamers employed on the service are: Cumberland—length, 85 ft.; breadth, 18 ft.; allowed to carry 30 passengers. Wolverine—length, 125 ft.; breadth 32 ft.; allowed to carry 500 passengers. Highlander—length, 76 ft.; breadth, 18½ ft.; allowed to carry 100 passengers. Lotta S.—length, 65 ft.; breadth, 14 ft.; allowed to carry 20 passengers. The company's general offices are at Chicago, J. K. McKenzie being General Manager, and J. E. Robinson Traffic Manager.

B.C. and Pacific Coast Marine.

The Nelson Board of Trade has written the Superintendent of the C.P.R. steamships in B.C., asking that the new steamer being built for the Nelson-Kootenay Landing run, be named City of Nelson instead of Kuskonook as had been previously suggested.

The sealing schooner Beatrice, which is now undergoing a refitting at Victoria, B.C., will be renamed Duchess of Bedford, and is expected to be completed early in May. The schooner was purchased by Capt. E. Mikkelsen, for use on his intended expedition into the polar regions.

The crew engaged in salving the German steamer Mariechen, which was stranded on the Alaskan coast at False Bay, expects to be able to get her afloat and taken to Esquimalt, B.C., by the beginning of May. The hull is not very much injured, and on its delivery in Esquimalt the salvors will get $37,500.

Dawson, Yukon, Transportation Co. is the title of a new company incorporated under the Dominion Companies' Act, with a capital of $25,000 and offices at Dawson, Yukon, to carry on a trading business in the Yukon Territory, and in connection therewith to purchase or construct steam or other vessels and to carry on a general navigation business. The provisional directors are J. H. and E. Holme, D. J. and Mrs. A. H. Langstaffe, W. M. Paynter, all of Dawson.

The Minister of Marine, replying to questions in the House of Commons recently, said the Government had called for tenders for the construction of a steamer for survey purposes on the Pacific coast, and had decided to charter a small steamer to carry on the work pending the construction of the new one. It was also proposed to extend the telegraph service on the coast, and to establish a wrecking plant there. The Government had made reciprocal arrangements with the U.S. to recognize each country's inspection of boilers and hulls, but he would seriously consider whether it would not be wise to require more rigid inspection of the U.S. vessels in Canadian waters. He

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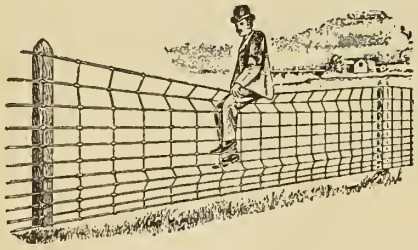

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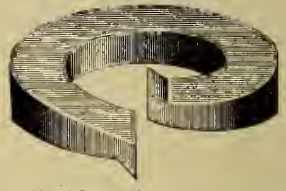

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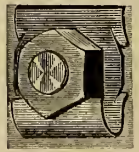

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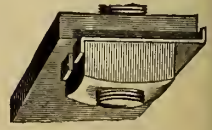

TIE BAR LOOK

would look into the question of the fitness of the Government inspector of boilers and hulls on the Pacific coast.

The United States investigation into the loss of the str. Valencia off the coast of Vancouver Island, found that Capt. Johnson, the master, was responsible for the loss through faulty navigation, and he is censured for error in calculating the over-running of the log, and with failure to take soundings either soon enough or with sufficient frequency. The concluding paragraph of the report says: "The commission desires to emphasize as the primary and greatest cause of the loss of life the defective state of the aids to navigation and preservation of life in the shape of lighthouses, fog signals, life saving equipment and means of communication in the vicinity of the wreck." The Canadian Government has already taken steps to provide additional aids to navigation, telegraph lines, etc., on the coast, as a result of an independent inquiry its marine officers made into the loss of the vessel.

Among the Express Companies.

R. Helme, heretofore route agent at Nelson, B.C., has been appointed Superintendent of the Dominion Ex. Co.'s Pacific Division with headquarters at Vancouver.

The Dominion Parliament has under consideration a bill the object of which is to place express companies under the jurisdiction of the Board of Railway Commissioners.

H. B. White, formerly cashier Dominion Ex. Co., St. John, N.B., was placed under arrest April 4, to answer charges of forgery. According to the evidence of the acting agent, White is credited with having stolen in various ways $3,671.45 in 15 days.

R. B. Colwell, heretofore agent Dominion Ex. Co., Halifax N.S., has been appointed acting route agent for the territory east of Megantic, Que., with headquarters at Halifax. He is succeeded as agent there by W. A. Hart, heretofore in the company's Montreal office.

Representatives of the Canadian, Dominion, Maritime and American express companies which do business in Halifax, wait on the Laws and Privileges Committee of the City Council to protest against the proposed increase of the tax on express companies. After hearing the statement of the companies, the committee decided to recommend the fixing of a license of $100 for companies whose head office is in Nova Scotia, and $300 for companies with head offices elsewhere.

The Canadian Ex. Co. operates over the Intercolonial Ry., and its business is handled by the I.C.R. station agents. They are paid a commission on all the business handled, but they recently asked for an increase through a committee of the Order of Railroad Telegraphers. The company refused to treat with this committee, and an order was given that the agents would cease handling express matter for the company April 14. In accordance with notice previously given the Dominion Government railway station agents ceased handling Canadian Ex. business at midnight, Saturday, April 21, at such points as they represent the company. There are altogether 117 points on the I.C.R. and the Prince Edward Island Ry. affected by the strike, but the company's business on the Government railways has not been suspended as a result. H. C. Creighton, Superintendent Atlantic Division, stated that the company has its own agents, independent of station agents, in the larger places and at the smaller stations the agencies can be closed without material loss. It is proposed to close up a number of these agencies, but the company will open up independent agencies in all places where the business warrants it

Telegraph and Cable Matters.

The C.P.R. telegraph offices will now accept messages at night rates until 2 a.m., instead of midnight as heretofore.

The C.P.R. Telegraph Department has equipped its Montreal-North Bay line with a Phantoplex, by means of which as many as six messages may be sent over the same wire simultaneously.

The Marconi Wireless Telegraph Co. installed a telegraph apparatus on board the Dominion str. Montcalm before she left on a trip to give warning to incoming steamers as to the location of ice in the gulf of St. Lawrence.

The sale of the freehold of Fanning Island was announced to be made in the High Commissioner's Court, Fiji, April 17. Fanning Island is the mid-ocean station of the British Trans-Pacific cable between Vancouver Island, B.C., and New Zealand.

The C.P.R. Telegraph Department put into effect April 1 a regulation to the effect that the rate for all commercial news, stock reports, etc., will be $2.50 per week for 250 words or less, and ½c. for each additional word. This rate will not apply to customers heretofore taking C.N.D. reports. Should they discontinue the service at any time the above rates must be applied when they wish to resume.

The Dominion De Forest Wireless Telegraph Co. states that it successfully sent messages from its Manhattan Beach station to a station on the Irish Coast, 3,200 miles, Mar. 28. Of the 1,000 words sent out in various keys, 572 were said to have been received and recorded. On April 6, representatives of the company stated that messages were being regularly sent to Ireland, but that as the station was only equipped for sending, messages could not be received from Ireland. The company says its trans-Atlantic stations will be ready for public business in Nov.

The Anglo-American Telegraph Co. will, the St. John, Nfld., papers state, at an early date lift the cables at Placentia and "re-lay them to Come-by-Chance, at the head of Placentia Bay, whence they will be connected with the cables at Bull Arm, Trinity Bay, the repeating instruments at Placentia being located at St. Pierre in the future. Electrician Scotland removed these instruments and proceeded to St. Pierre in the tug St. Pierre; and the Placentia cable office, after having been open day and night for almost 40 years, is now reduced to the status of a local telegraph office, open from 9 to 9 only. The five operators working there will be removed to Heart's Content and St. Pierre."

The C.P.R. Telegraph Department, it is reported, will construct 610 miles of new pole lines and string 4,068 miles of wire along its railway system. Of the wire mileage 1,966 miles will be of copper wire. The new lines include the following: A copper wire from Montreal to Winnipeg, which will be worked duplex (two circuits). This will make four double circuits in use between these points. A copper wire from Montreal to Toronto, worked quadruplex (four circuits), will make four quadruplex wires (sixteen operators at each end) between these cities, in addition to railway and way wire. An iron wire from Montreal to Ottawa will be worked quadruplex, in addition to the one now in use, and a cable will be laid between Prescott, Ont., and Ogdensburg, N.Y., for the railway service.

The new arrangement of the C.P.R. and G.T.R. with the Canadian Transfer Co. for checking baggage to residences, hotels, etc., which has been in operation for some months at Montreal, Toronto and Hamilton, has been extended to Ottawa.

Relation of the Telegraph to the Railway.

In connection with the relation of the telegraph to the operating department, the telegraph may be said to constitute the great actuating and vital force in the operation of the railway. The great essentials for successful telegraph service are adequate wire and instrument equipment efficiently maintained and properly utilized. To provide adequate wire and instrument equipment, and to maintain the same efficiently, is the chief service performed by the telegraph for the operating department, but in this connection, I would observe that the telegraph department is directly responsible and accountable for such service only to the extent of the control by the telegraph department of the agencies necessary to secure such service. The agencies beyond the control of the telegraph department are to be found in the operating department itself and in the maintenance of way department, and unless there is active, intelligent co-operation on the part of these departments, the telegraph service cannot be efficient. Particular agencies in the operating department, whose services are indispensable in securing efficient telegraph service, are the train dispatchers, agents and operators. Interruptions occur from various causes, fire, flood, lightning, rock, snow and landslides, wind and sleet storms, train accidents, and from interference by workmen along the line by derricks, steam shovels, pile drivers, bridge gangs, etc. The first duty of the circuit managers (wire testers) when such interruptions occur is to provide a wire for the train dispatcher. Usually at such times, the train dispatcher will bestir himself to give assistance, but very often when he secures a wire he is no longer interested. Dispatchers, therefore, should lend every assistance when called upon by circuit managers. In cases where there may be trouble at more than one point covered by a lineman's beat during severe weather, and when night is likely to overtake the lineman before he can cover the ground, dispatchers should give orders to trains when at all possible to stop for linemen to make temporary repairs, which usually will only occupy a few minutes, and be the means of restoring communication quickly.

Again, in cases of severe trouble and when no trains may run for hours, a light engine is required and train dispatchers should be authorized to act promptly on request of the circuit managers to furnish same. In such case, the telegraph department would become responsible for any unnecessary use of light engines. There are dispatchers and dispatchers. I have known a dispatcher working one of the heaviest train sections, who could find the means, apparently with no delay to train movement, to render such assistance in the recovery of wires. Another dispatcher, working a different trick on the same train section, will curtly order the circuit manager off the wire if he endeavors to do business. In some instances dispatchers have undertaken to help themselves to wires, to order ground wires on and patches made at offices, without notification to the circuit managers, thus putting in more trouble which the circuit manager has to clear up, in addition to the original trouble. The telegraph department is responsible in this connection and the circuit managers should control the circuits. Agents and operators in many cases fail to do the needful. They fail to answer circuit manager's call for "wire," and when reported to their superintendent for such failure, they excuse themselves to their superintendent on the ground of attention to other work, and nothing is done. In very many cases agents and operators are unable to do switchboard work required by the circuit manager, notwithstanding a leaflet issued over a year ago giving full instructions with diagrams, and notwithstanding the fact that our inspectors are continuously travelling

inspecting offices and are available to post agents and operators on any points that may trouble them. With these diagrams and instructions, however, any intelligent operator, if he gives suitable attention to the subject, can qualify in a very short time, and I think, that such qualification should be made compulsory, and a time limit given within which they must qualify, evidence of such qualification to be a certificate from the inspector of telegraph, that they have been fully tested and found qualified. Telegraph service for the railway, exclusive of service in connection with the movement of trains, is also in the hands of the operating department, except at Montreal, Winnipeg, Calgary and Vancouver, where this work has been transferred to the telegraph department. It, therefore, rests very largely, if not entirely, with the operating department itself to see that this branch of the service is satisfactory.

There is urgent necessity that the use of the wires for railway service business be restricted. Many telegrams sent are entirely unnecessary, and in connection with matters that could be adjusted by train mail. Also many telegrams are sent that could be reduced in length, very often one-half. There is need of a rigorous censorship in this connection. Such censorship should be under the direction of someone in connection with the operating department or railway service, sufficiently familiar with all departments of the service to enable him to act intelligently.

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NOTICE is hereby given that an application will be made to the Parliament of Canada at its present session by the James Bay Railway Company for an Act empowering it to construct and operate a branch line, not exceeding ten miles in length, from a point on its authorized line between Toronto and Sudbury to Key Inlet, and amending Section 3 of Chapter 50 of the Statutes of Canada, 1895, by striking out therefrom the words "the easterly side of Lake Wahnapitae and thence to."

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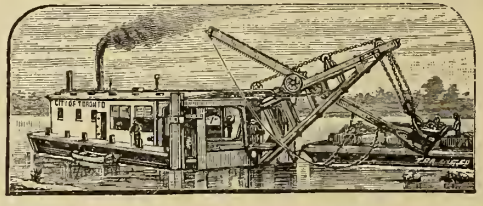

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is especially necessary, for the reason that any excuse for defective service is not accepted. I refer to telegraph service rendered by the company direct to the public, usually called "commercial business." Here again is a service which, particularly on Western lines, is largely, if not entirely, dependent upon the services of agencies controlled by the operating department, with the added difficulty that these agencies are compelled to give preference to telegraph service for the operating department in connection with the movement of trains. In other words, if we have defective service in connection with our own telegraph service, as applied to railway operation, we have increased difficulty in giving a satisfactory service to the public. Seventy-five per cent. of the business handled for the public on Western lines, is handled through the railway stations. Defective service in connection with the company's own interests is a matter of domestic concern, but service for the public is a very different proposition. The public does not discriminate between departments. The company operates a telegraph system through Canada, from ocean to ocean, connecting at each end with cable service across both oceans, and advertises the fact extensively in its various publications, so that the public have now come to consider that they should obtain better telegraph service along the line of the C.P.R. than along any other railway system. The company's transcontinental passengers look upon its telegraph service as a very great convenience, not given by other transcontinental systems which do not control the commercial telegraph service. The reputation of the company, therefore, is at stake in this matter and in the same sense as defective service in connection with freight, passenger, dining, sleeping car or other services would be criticized. I am aware that our superintendents and other operating officers very often are not impressed with the importance of this service because of their knowledge that the revenue at many stations is small in comparison with the freight and passenger receipts, but in the aggregate it affords a very important source of revenue to the company. A joint circular was issued over a year ago by the Superintendent of Transportation and myself, approved by the Second Vice-President, defining the duties of dispatchers, circuit managers, agents, operators and conductors in connection with telegraph service. These instructions, which have been closely followed up by personal and continued personal supervision by Superintendents and inspectors, have had a very salutary effect. Since these instructions were issued, there has been a noticeable improvement in the service, but nevertheless agents are disposed to regard commercial service as a side issue, the same as express, and Superintendents are not inclined to reprimand agents for neglect of commercial service especially if other station work is properly attended to. There is perhaps a feeling that the importance of public service in connection with telegrams is overestimated. I wish to say most emphatically that a telegram is an emergent communication, and the company having undertaken a public service must perform such service satisfactorily. I wish to emphasize the importance of Superintendents co-operating with the telegraph department to insure that instructions contained in the special circular are strictly observed by all employes handling commercial telegrams.

Nearly 2,000,000 paying telegrams were handled at Western Lines offices in 1905. Between 1900 and 1905, telegraph earnings increased 114%.

Present wire facilities seem adequate, and with additions to be made this year will be fully adequate. In the construction and maintenance of lines, we are fully abreast of the times. In the electrical branch and in operation, our methods are also up-to-date, our instruments and apparatus generally being of the latest and best type. The old Callaud or gravity battery, which has been a faithful friend of the telegraph, is now being largely displaced by storage battery, both for main batteries and for local batteries where suitable current from power plants is available, and with very beneficial results. The method of conducting wires into stations by means of aerial cable has been largely adopted, over 100 offices on Western Lines having been thus equipped.

[Extracted from paper read by B. S. Jenkins, General Superintendent Telegraphs, Western Lines, C.P.R., read at Officials' Conference, Field, B.C.]

General Telephone Matters.

The Bell Telephone Co. has completed a telephone line between St. Thomas and Port Stanley, Ont.

The Eastern Telephone Co. has started the construction of a new line from Sydney to Broughton, N.S.

The residents of Byron, Ont., have arranged to construct a line to connect with the Bell Telephone Co.'s lines.

A telephone line is under construction from Dinorwic, Ont., to a number of gold mining camps in the vicinity.

The Buctouche Telephone Co. has been incorporated by an act passed at the recent session of the New Brunswick Legislature.

The Bell Telephone Co. proposes to construct a line between Calgary and Lethbridge, Alta., and to lay a number of miles of underground cables in Calgary during the summer.

The Fort William, Ont., Town Council has decided to construct a building for its telephone lines. The operating room will be constructed so as to have a capacity for 17 sections of switch boards, or about 5,000 lines.

The New Brunswick Telephone Co. has decided to go ahead with the construction of the loop to St. John via Fredericton Jct., and the line to Canterbury, as well as the carrying out of some minor betterments on its lines.

The Bell Telephone Memorial Association has been incorporated by the Ontario Legislature, for the purpose of erecting a suitable memorial perpetrating the memory of A. Graham Bell, the inventor of the telephone. The association has its office at Brantford, Ont., and its Secretary is Geo. Hately.

The Yarmouth Telephone Co., which is carrying on business in Yarmouth, N.S., has been granted a charter of incorporation by the Nova Scotia Legislature. It is authorized to carry on a telephone business throughout Yarmouth county, and to connect its lines with those of other telephone systems.

The G.T.R. is arranging for the construction of telephone lines over its entire system. The central exchange will be in the general office of the company at Montreal, and the main trunk lines will extend to Portland, Me., in the east, and Chicago, Ill., in the west. The lines will be used entirely for the company's business.

The Welland County Telephone Co. has been incorporated under the Ontario Companies' Act, with a capital of $40,000 and offices at Stevensville, Ont., to carry on a general telephone business throughout the county of Welland. The provisional directors are: J. Pierson, C. E. Sauer, S. H. Tripp, P. A. Storm, T. Glenny and W. Robinson.

The Low Bank Telephone Co. has been incorporated under the Ontario Companies' Act, with offices at Lowbanks, Ont., and a capital of $40,000, to construct telephone lines and to carry on a general telephone business in Wainfleet and Humberstone tps., Welland County; and Sherbrook, Moulton and Dunn tps., in Haldimand County. The provisional directors are: A. Barrick, J. E. Furry, A. Mann, all of Moulton tp.

The Independent Long Distance Telephone Co. is applying at the current session of the Ontario Legislature, for an act of incorporation, authorizing it to construct telephone lines, make agreements with individuals,

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municipalities, or the Provincial Government, for the construction of telephone lines, and to engage in the manufacture of telephone apparatus and materials. C. Duff Scott, solicitor, Toronto, is acting for the applicants.

The accounts of the corporation of Port Arthur, Ont., from Jan. 1 to Dec. 15, 1905, show telephone receipts of $8,571.71, of which $3,714.85 was from commercial subscribers and $4,504.51 from private subscribers, the balance being miscellaneous receipts. After meeting all charges for superintendence, operation, maintenance, rent of office, interest on debentures, etc., and $400 on account of depreciation, there remained a balance of $2,301.10. The total debt incurred for the system is $38,582.92, of which $18,000 is represented by the building which had not been handed over to the council. The system is carried as an asset of the value of $26,237.63.

The Charlottetown, P.E.I., Board of Trade sent a deputation to the Provincial Government recently to ask that in considering an application of the Telephone Co. of P.E.I., for an extension of franchise and additional powers, provision be made in the act for a direct main line from Charlottetown to Summerside, and lines to East Point and West Cape; the removal of the exchanges from country stores to more private places; a reduction of tolls and rents, and cheaper telephones for country places. The bill provides for a line to Summerside and a franchise for 10 years with freedom from taxation. An amendment reducing the franchise to five years was defeated in committee, April 12.

With the exception of the three eastern maritime provinces the question of the municipal ownership of telephone lines has been under consideration by the various legislatures during the sessions of 1905. Manitoba came first by passing the acts of which summaries were given in our April issue, and bills drawn in almost identical terms are being discussed in the legislatures of Alberta and Saskatchewan. In British Columbia an act has been passed giving persons, associations or companies operating a telephone line the right to connect with the lines of any public telephone company; providing for the reception of messages from connecting lines, and for the fixing of the rates for such services, either by the Governor-in-Council, or municipal corporations, and for the approval of the rates to be charged by public companies. In Ontario, a bill is under consideration by the Legislature, empowering municipal councils to provide for the establishment and maintenance of a local telephone system at the expense of subscribers, the system to be vested in the corporation in trust for the subscribers. The lines to be constructed and the instruments installed are to be of a standard to be fixed by the Government; municipalities will have power to agree with each other as to connections, and to arrange with the Postmaster-General to establish exchanges in post offices upon terms. This bill, while introduced by Hon. A. Beck, is not a Government measure. An amendment to the Railway Act, 1903, is under consideration by the Dominion Parliament, which will have the effect of bringing telephone companies under the jurisdiction and control of the Board of Railway Commissioners, providing for the control of rates, the interchange of business between different companies and for direct oral communication.

The Purchasing Agents' Guide

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E. L. Drewry ..... Winnipeg.

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Canada Foundry Co. ..... Toronto.
Canadian Westinghouse Co. ..... Hamilton, Ont.

Air Compressors
N. J. Holden Co. ..... .Montreal.

Ales
E. L. Drewry ..... Winnipeg.

Angle Bars
Montreal Rolling Mills Co. ..... Montreal.

Axes
James Smart Mfg. Co ..... Brockville, Ont.

Axe Steel
Montreal Steel Works ..... Montreal.

Axles
James Hutton & Co. ..... Montreal.
B. M. Jones & Co., Inc ..... Boston and New York.
Jas. W. Pyke & Co. ..... Montreal.
Rhodes, Curry & Co. ..... Amherst, N.S.

Beams
Hamilton Bridge Works ..... Hamilton, Ont.

Bearings, Side
Chicago Railway Equipment Co. .... Chicago, Ill.

Belting, Rubber
The Canadian Rubber Co. of Montreal.

Blankets and Bedding
The Hudson's Bay Co. .....

Block Signals
General Railway Signal Co. ..... Buffalo, N.Y.

Boiler Compound
N. J. Holden Co. ..... Montreal.

Boiler Covering
Mica Boiler Covering Co. ..... Montreal.

Boilers
Babcock & Wilcox (Ltd) ..... Montreal.
Canada Foundry Co. ..... Toronto.
Hall Engineering Works. ..... Montreal.
Polson Iron Works. ..... Toronto.
Robb Engineering Co. ..... Amherst, N.S.

Boilers, Internally Fired
Robb Engineering Co. ..... Amherst, N.S.

Boilers, Portable
Canada Foundry Co. ..... Toronto.
H. W. Petrie ..... Toronto.
Robb Engineering Co. ..... Amherst, N.S.

Boilers, Stationary and Marine
Babcock & Wilcox (Ltd.) ..... Montreal.
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Boilers, Steam
Babcock & Wilcox (Ltd.) ..... Montreal.
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Boilers, Water Tube
Babcock & Wilcox (Ltd.) ..... Montreal.

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Jas. W. Pyke & Co ..... Montreal.

Boisters
Simplex Railway Appliance Co. ..... Montreal.

Bolts, Bridge
Canada Foundry Co. ..... Toronto.
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F. H. Hopkins & Co. ..... Montreal.
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Alexander Car Replacer Mfg. Co. ..... Scranton, Pa.
N. J. Holden Co. ..... Montreal.
F. H. Hopkins & Co. ..... Montreal.

Cars
American Palace Car Co. .... New York & Toronto.
Canada Car Co. ..... Montreal.
Crossen Car Mfg. Co. ..... Cobourg, Ont.
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Castings, Brass
Canadian Bronze Co. ..... Montreal.
Canadian Iron and Foundry Co. ..... Montreal.
Kerr Engine Co ..... Walkerville, Ont.
St. Thomas Brass Co. ..... St. Thomas, Ont

Castings, Iron
Canadian Iron and Foundry Co. ..... Montreal.
Kerr Engine Co ..... Walkerville Ont.

Castings, Iron and Steel
American Brake Shoe & F'dry Co. .... Mahwah, N.J.

Castings, Steel
Canada Car Co. ..... Montreal.
Canadian Iron and Foundry Co. ..... Montreal.
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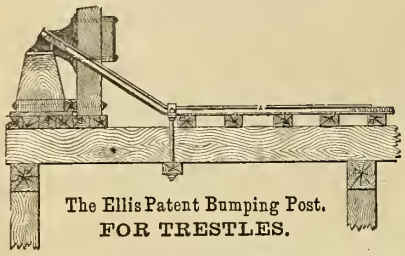

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Robb Engineering Co.....Amherst, N.S.

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Canadian Fairbanks Co.....Montreal.
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Ontario Wind Engine and Pump Co. .... Toronto.

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M. Beatty & Sons.....Welland, Ont.

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Owen Sound Wire Fence Co....Owen Sound, Ont.
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New Brunswick Wire Fence Co.....Moncton, N.B.

Fence Staples
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James Smart Mfg. Co.....Brockville, Ont.

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Crossen Car Mfg. Co.....Cobourg, Ont.
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W. H. C. Mussen & Co.....Montreal.
Toronto Pressed Steel Co.....Toronto.

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N. L. Piper Railway Supply Co.....Toronto.

Headlinings
Crossen Car Mfg. Co.....Cobourg, Ont.

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Duner Co.....Chicago, Ill.

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The Canadian Rubber Co. of Montreal.

Hose, Fire
The Canadian Rubber Co. of Montreal.

Hose, Suction
The Canadian Rubber Co. of Montreal.

Hydrants
Kerr Engine Co.....Walkerville, Ont.

Illustrations
Acton Burrows Limited.....Toronto.

Inspection Cars
Canada Cycle and Motor Co...Toronto Junc. Ont.

Inspections
R. W. Hunt & Co.....Montreal.
H. Jarvis & Co.....,Chicago, Ill.

Instruments, Surveying and Engineering
Eugene Dietzgen Co.....New York.
James Foster.....Toronto.

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General Railway Signal Co.....Buffalo, N.Y.

Interlocking Signals
Montreal Steel Works.....Montreal.

Iron
A. C. Leslie & Co.....Montreal.

Iron Fencing
The G. B. Meadows Wire, etc., Co.....Toronto.

Iron, Pig
John McDougall & Co.....Montreal.

Iron Signs
Acton Burrows Limited.....Toronto.

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James Smart Mfg. Co.....Brockville, Ont.

Japans
McCaskill, Dougall & Co.....Montreal.

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Canadian Bronze Co.....Montreal.
Crossen Car Mfg. Co.....Cobourg, Ont.
Kerr Engine Co.....Walkerville, Ont.
Jas. W. Pyke & Co.....Montreal.
St. Thomas Brass Co.....St. Thomas Ont.

Journal Boxes
N. J. Holden Co.....Montreal.

Lager Beer, &c.
E. L. Drewry.....Winnipeg.

Lamps, Incandescent
Canadian Westinghouse Co.....Hamilton, Ont.

Lamps and Lanterns
The Hudson's Bay Company.....
The Hiram L. Piper Co.....Montreal.
N. L. Piper Railway Supply Co.....Toronto.

Lathes
The John Bertram Sons Co.....Dundas, Ont.
H. W. Petrie.....Toronto.

Launches
Polson Iron Works.....Toronto.

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F. H. Hopkins & Co.....Montreal.
W. H. C. Mussen & Co.....Montreal.

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Rolph & Clark (Ltd.).....Toronto.

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American Brake Shoe & F'dry Co..Mahwah, N.J.
Canadian Iron and Foundry Co.....Montreal.

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Canadian Fairbanks Co.....Montreal.

Locomotives (Compressed Air)
Canadian Locomotive Co.....Kingston, Ont.
Locomotive and Machine Co. of Montreal.

Locomotives (Electric)
Canada Foundry Co.....Toronto
Locomotive and Machine Co. of Montreal.

Locomotives (Logging)
Canadian Locomotive Co.....Kingston, Ont.

Locomotives (Rack)
Canadian Locomotive Co.....Kingston, Ont
Locomotive and Machine Co. of Montreal.

Locomotives (Steam)
Canada Foundry Co.....Toronto.
Canadian Locomotive Co.....Kingston, Ont.
The W. H. Kelson Co.....Montreal
Locomotive and Machine Co. of Montreal.

Locomotive Stack Netting
The G. B. Meadows Wire, etc., Co.....Toronto

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W. Abbott.....Montreal.
Canadian Fairbanks Co.....Montreal.
H. W. Petrie.....Toronto.

Machine Screws, Set Cap and Planer
John Morrow Machine Screw Co.....Ingersoll.

Machinery, Marine
Sheriffs Mfg. Co.....Milwaukee, Wis.

Machinery Repairs, Marine
Sheriffs Mfg. Co.....Milwaukee, Wis.

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Montreal Steel Works.....Montreal.

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Canadian Iron and Foundry Co..... Montreal.

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W. Abbott.....Montreal.

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H. W. Petrie.....Toronto.

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The John Bertram Sons Co.....Dundas, Ont.
H. W. Petrie.....Toronto.

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J. A. Dawson & Co.....Montreal.

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Canada Cycle & Motor Co....Toronto Junc., Ont.

Nickel
The Orford Copper Co.....New York.

Nickel for Nickel Steel
The Orford Copper Co.....New York.

Numbers
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Jones Positive Nut Lock Co.....Chicago, Ill.
Positive Lock Washer Co.....Newark, N.J.

Nuts, Cold Pressed
John Morrow Machine Screw Co.....Ingersoll.

Nuts, Square and Hexagon
Canada Foundry Co.....Toronto.
Montreal Rolling Mills Co.....Montreal.
Toronto Bolt and Forging Co.....Toronto.

Oakum
The Hudson's Bay Company.. .....
McKenzie & Co.....Montreal.

Office Desks
Canadian Office & School Furniture Co., Preston, Ont.

Office Fittings
Canadian Office & School Furniture Co., Preston, Ont.

Office Railings
The G. B. Meadows Wire, etc., Co.....Toronto.

Office Signs
Acton Burrows Limited.....Toronto.

Oils
Canadian Oil Co.....Toronto.
Galena Signal Oil Co., Franklin, Pa., and Toronto.

Packing
The N. L. Piper Railway Supply Co.....Toronto.

Packing, High Pressure Sheet
The Canadian Rubber Co. of Montreal.

Packing, Piston
The Canadian Rubber Co. of Montreal

Paints
Canadian Oil Co.....Toronto.

Paints, Dampresisting
E. F. Dartnell.....Montreal.

Passenger Cars
American Palace Car Co..New York and Toronto.

Pinch Bars
The N. L. Piper Railway Supply Co.....Toronto

Pipe and Pipe Coverings
W. C. Baker.....New York.

Pipe Covering
Canadian Fairbanks Co.....Montreal.
Mica Boiler Covering Co.....Montreal.

Piston Rods
B. M. Jones & Co., Inc....Boston and New York

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H. W. Petrie.....Toronto.

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W. H. C. Mussen & Co.....Montreal.
Toronto Pressed Steel Co.....Toronto.

Pneumatic Tools
N. J. Holden Co.....Montreal.

Porter
E. L. Drewry.....Winnipeg.

Portable Boilers
Babcock & Wilcox (Ltd.).....Montreal.
Canada Foundry Co.....Toronto.
Robb Engineering Co.....Amherst, N.S.

Power Houses
Steel Concrete Co, (Ltd.).....Montreal.

Printing
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The Mail Job Printing Company.....Toronto.

Propeller Wheels
W. Kennedy & Sons (Ltd.).....Owen Sound, Ont.
Sheriffs Manufacturing Co.....Milwaukee, Wis.

Pumps
Canadian Fairbanks Co.....Montreal.
Canada Foundry Co.....Toronto.
Goold, Shapley & Muir Co.....Brantford, Ont.
James Smart Mfg. Co.....Brockville, Ont.

Pumps (Centrifugal)
M. Beatty & Sons.....Welland, Ont.

Punching and Shearing Machines
The John Bertram Sons Co.....Dundas, Ont.

Rail Benders, Roller
F. H. Hopkins & Co.....Montreal.
Montreal Steel Works.....Montreal.

Rails (new)
Drummond, McCall & Co.....Montreal.
F. H. Hopkins & Co.....Montreal.
J. J. Gartshore.....Toronto.

Rails (for relaying)
F. H. Hopkins & Co.....Montreal.
J. J. Gartshore.....Toronto.
T. A. Morrison & Co.....Montreal.
W. H. C. Mussen & Co.....Montreal.
Jas. W. Pyke & Co.....Montreal.

Railway Bridges
Hamilton Bridge Works.....Hamilton, Ont.

Railway Interlocking
General Railway Signal Co .....Buffalo, N.Y.

Rail Joints
N. J. Holden Co.....Montreal.

Railway Pile Drivers
F. H. Hopkins & Co .....Montreal.
W. H. C. Mussen & Co.....Montreal

Railway Signalling
General Railway Signal Co.....Buffalo, N.Y.

Railway Spikes
F. H. Hopkins & Co.....Montreal.

Railway Supplies
J. A. Dawson & Co.....Montreal.
Canadian Fairbanks Co.....Montreal.
The W. H. Kelson Co.... .....Montreal.
The Hiram L. Piper Co.....Montreal.
The N. L. Piper Railway Supply Co.....Toronto.

Reamers
W. Abbott.....Montreal
Butterfield & Co.....Rock Island, Que.

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Geo. R. Prowse.....Montreal.

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Canada Foundry Co.....Toronto.
Montreal Rolling Mills Co.....Montreal.
Toronto Bolt and Forging Co.....Toronto.

Rolled Wheels
Standard Steel Works.....Philadelphia, Pa.

Rolls, Plate Bending
The John Bertram Sons Co.....Dundas, Ont.

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A. B. Ormsby Limited.....Toronto.

Roof Trusses
Canada Foundry Co.....Toronto.
Canadian Bridge Co.....Walkerville, Ont.
Dominion Bridge Co.....Montreal.
Hamilton Bridge Works.....Hamilton, Ont.

Rope
F. H. Hopkins & Co.....Montreal.
The Hudson's Bay Co.....
J. Leckie Limited.....Toronto.

Rotary Snow Ploughs
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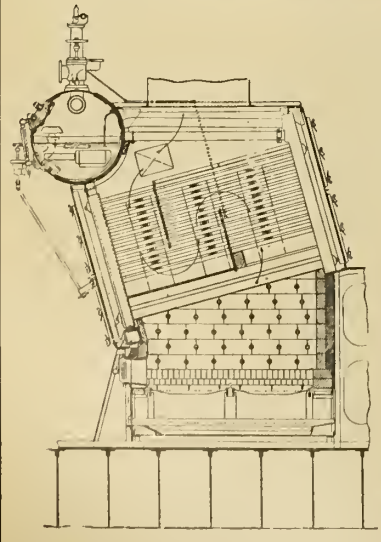
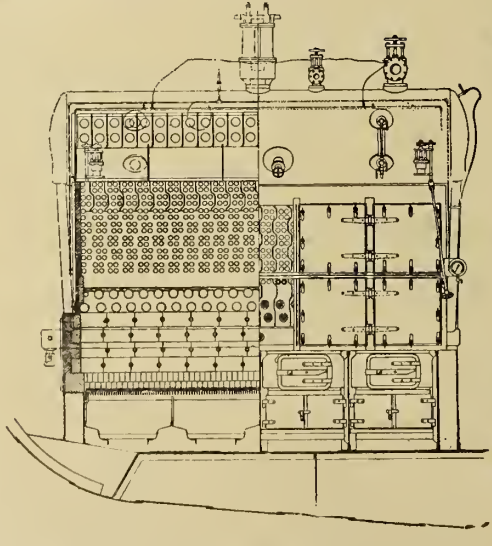
O. M. Edwards.....Syracuse, N.Y.





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See Alphabetical Index to Advertisements on page 339.

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TORONTO, CANADA, JUNE, 1906.

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C.P.R. Buildings at Winnipeg.

The group of buildings now nearing completion at Winnipeg for the C.P.R., which have been under construction for somewhat less than two years, comprises three distinct buildings, all connected, covering an area of 663 x 235 ft., and varying in height from the eight story hotel to the five story office wing, and six story station.

The station occupies a site facing south on the corner of Higgins Ave. and Maple St. One enters through an open portico 55 ft. wide and 40 ft. high, supported by four herculean columns of cut Tyndall stone. The vestibule is 56 x 24 ft. opening through to the main waiting room, 96 x 103 ft., with three vestibule entrances giving access to the train shed in rear. To the west of this room is an entrance for those with baggage to be checked, which is deposited on the baggage counter near by and a ticket purchased across the passage. One can thus attend to all the details of this matter without losing sight of one's luggage. A ladies' waiting room is located at the south-west corner of the waiting room; it is 36 x 44 ft., and off it opens a retiring room and lavatory. On the south-east corner, and of similar size, is the men's smoking room, with lavatory and boot cleaning conveniences. To the east side of the waiting room and facing on Maple St. is located the cafe, lunch room and kitchen, large spacious rooms with pleasant outlooks. At the northwest corner of the main waiting room are bunched together the usual conveniences, such as a parcel and news stand, baggage transfer, telephone and telegraph offices, and a room for conductors. The waiting room is one of the most impressive of the rooms, extending through three stories in height, and being covered with a segmental glass roof, which, together with the windows to the north and south, flood the room with daylight. The floor is of mosaic, the wood-work of dark stained British Columbia fir and oak, the enriched capitals, frieze and other decorative members are treated in toned golden glazes, which with the soft, rich green on the walls and the appropriate stained oak furniture, make a most impressive and restful room. Under the waiting room, and by a separate entrance leading from the train shed, is a large waiting room and lunch room for second-class passengers, a dining room for employes and other storage rooms On the first floor are the Land Department's offices facing on Higgins Ave. and Maple St., 131 x 41 ft., with spacious fireproof vaults for documents and plans. The Second Vice-President and staff, and the officials of the various departments are given spacious accommodation on the three upper floors, and when it is mentioned that the corridors giving access to the rooms located on each side are over 2,000 ft. long, some idea of the immense magnitude of the office space required may be conceived. Every room has the best of daylight, the rooms being of a depth of from 24 x 30 ft., with male and female lavatory accommodation on each floor, and ample storage vault space. The access to the offices is by two spacious stairways and by an electric elevator opening off the main vestibule of the station. The offices extend over the baggage and express rooms, which form the connection between the station and hotel buildings. Ample provision is made for the Customs officers and a bonded baggage room for the mails, news, dining and sleeping car supply and storage rooms, porters' room, linen rooms and refrigeration and wine rooms for the dining cars.

E. H. FITZHUGH,
Third Vice-President Grand Trunk Ry.

The traveller, in approaching the hotel, obtains access by the main double entrance on Higgins Ave., or by a spacious corridor that leads directly off the station platform. By the former, protected by an artistic marquise of wrought iron and glass, extending from the street curb to the wall, one enters by two revolving doors into a spacious entry and the main rotunda, to the right of which opens a ladies' reception room, 18 x 21 ft., with a high vaulted ceiling. This room is in the Empire period, finished in white enamel with delicate and refined details of the period. The rotunda is a magnificent room, 132 x 180 ft., facing on two streets and affording a view the whole length of Main St. from the corner windows. This room has a portion divided off for a reading room and for a smoking room, luxuriously fitted up with a marble and carved oak mantel. Immediately opposite the entrance is the hotel office, where is located the cashier's box, the telephone system in communication with every room and office in the buildings, a telegraph office, manager's office, cloak and parcel office, etc. Two swift passenger elevators are between the entrance and the office, giving quick service to the basement and the six bedroom floors above. In addition there are three service elevators suitably located. The main staircase ascends near the elevators and is a spacious marble construction, 8 ft. wide.

The main dining room, 50 x 125 ft., is located at the corner of Higgins Ave. and the large square on which the station faces. It is doubtful if a more magnificent or better proportioned room will be found than this; the wealth of interesting detail lends a charm that will retain a lasting and pleasing impression on the observer. The ceiling is richly coffered with deep beams supported by panelled oak pilasters at each end, with glazed and decorated golden caps. In the centre of the east wall, on the axial line of the entrance to the room, and visible from the far side of the rotunda, is a large carved oak and marble mantelpiece. On the west wall is a similar imposing carved oak entrance doorway extending to the cornice, into which are framed three Della Robia panels. At the service, or north end of the room, is a musicians' gallery, beneath which are placed the approaches to the kitchen.

In the north of the rotunda, and facing on the large open central court of the hotel is the cafe, 46 x 70 ft., covered by a segmental vaulted ceiling. The wainscoting in quartered oak is carried 8 ft. above the floor. Above this is a richly decorated frieze extending to the main cornice from which the ceiling springs. The detail of this room is strikingly original and more liberty has been taken in its development than in the more formal rooms; the ceiling is

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CHARLES MILLER,

PRESIDENT.

filled with pale amber glass down the centre which, with the windows, provides a quiet toned light that is restful. To the north of the reading-room is located the bar room, 48 x 50 ft., a most unique and unconventional room that recalls the chateaux of the Tyrolean Alps, in its deep-toned oak, huge swinging crane, electric fixtures, the leaded glass windows of luxuriant grape vines, the dark-red waxed tile floor, and the impressionistic and beautiful mural paintings by Mr. Beau of Montreal. Off this room, a few steps down, is a large room that will be used as a grill room, and conveniently located near by are the barber shop, wine cellars, ladies' hairdressing rooms, bathrooms, lavatory, baggage room, baggage storeroom, elevator machinery, etc.

The kitchen department is most complete, the kitchen being 75 x 50 ft., and 20 ft. high, fitted in the most complete manner with all the necessary departments incidental to a hotel to accommodate 500 people. The floors are of mosaic, the walls of enamel, and all the details so perfectly arranged that service to all parts of the house is immediately at hand. A waiter, in filling an order, walks in at one door and from one department to another, covering a circular course, and walks out at another with his order filled. Everything is here simplified and systematized, under the eye of the chef or steward. A feature is the employes' accommodation, consisting of large airy bedrooms, lavatories, baths and laundry, recreation rooms, dining rooms, male and female, each separated and with separate entrances; staff and officers' dining rooms, children's and nurses' dining rooms, all served conveniently from the central kitchen and offices.

On the first floor the drawing room, 50 x 65 ft., is at the principal corner. Here is an ideal ladies' room in white enamel finish, with golden-colored Italian silk on the walls, and a dainty but imposing mantel piece. The style of the room is Louis XVI., the furniture in Italian walnut of sumptuous design. On the corresponding front corner and over the main dining room is the breakfast room, 50 x 65 ft., finished in a simple and pleasing colonial style, with warm, yellow walls and white woodwork. Placed between the drawing room and breakfast room, on the Higgins Ave. front, is a vice-regal suite, consisting of a Pompeiian salon, 16 x 29 ft., in the quiet, refined spirit of this style; next a private dining room, and ante-room, 42 x 20 ft., with service rooms off it; then two spacious bedrooms with dressing and bathrooms, ante-rooms, etc. The whole is screened off from the rest of the hotel, but so arranged that it can be thrown open and form part of it. On the opposite side of the hall is the guests' billiard room, 61 x 20 ft., with two tables, where ladies may with propriety handle the cue. The balance of the 1st, and the whole of the 2nd, 3rd, 4th, 5th, and 6th floors are given up to bedrooms, totalling over 300, and off practically every room opens a private bathroom, while a recessed porcelain basin and large clothes closet is in each room.

The finish throughout is of the best, the construction is as fireproof as steel, terra cotta, brick and concrete can make it, and the aim has been to provide an hotel where a lady, even if travelling alone, may make use of all the public rooms and still feel at home. A telephone is in each room, electric lights on the dressing table as well as besides one's bed, heat regulation is installed, the vacuum system of cleaning every room and corridor throughout is installed, and no New York or London hotel of the best class will excel the conveniences and accommodation herein provided with thoughtful care. The excellent taste displayed in the furnishings and decorations of the company's system of hotels has been here excelled. Everywhere an air of refinement, harmony in color, delicacy of treatment of detail in the style most appropriate to the room or article undertaken are everywhere evident.

The design of the buildings, and the execution of all the details, have been carried out by Edward & W. S. Maxwell, architects, Montreal. The contractors are P. Lyall & Sons, of Montreal.

CANADIAN PACIFIC RY.'S ROYAL ALEXANDRA HOTEL, AND STATION AT WINNIPEG, MAN.

Canadian Car Service Bureau, etc.—Referring to the item on this subject in our May issue, pg. 259. At a special meeting of the Canadian Freight Association Western Lines, held at Winnipeg, April 30, it was decided not to make any change in the existing organization, and the car service and freight inspection bureau will be continued as heretofore, under the management of H. R. Patriarche, with jurisdiction on the main line of the C.P.R. from Port Arthur, Ont., to Laggan, B.C., and on the Crow's Nest Pass branch west to Crow's Nest, B.C.

Free Scholarships in McGill University.

Sir Thos. G. Shaughnessy, President C.P.R., has issued the following circular: Two free scholarships covering four years' tuition in the Faculty of Applied Science of McGill University are offered, subject to competitive examinations, to apprentices and other employes of the company, under 21 years of age, and to minor sons of employes. The competitive examinations, which will be the regular entrance matriculation examination provided for in the annual calendar of the University, will be held under the supervision of the Faculty of Applied Science at the University, beginning June 12. The two candidates making the highest average and complying with the requirements of admission will be awarded the scholarships and have the option of taking a course in any Department of the Faculty of Applied Science. Scholarships will be renewed from year to year only upon the holders thereof passing satisfactorily the sessional and other examinations prescribed by the Faculty. Applications for certificates entitling eligible persons to enter the competition should be addressed to E. Alexander, office of the President, Montreal. Copies of the annual calendar containing the conditions of admission and announcement of courses may be obtained upon application to J. A. Nicholson, Registrar, McGill University, Montreal. The college will reopen for the session of 1906-07 on September 19.

Canadian Railway Club.—At the annual meeting held in Montreal, May 1, the following officers were elected for the current year: President, W. E. Fowler; Vice-President, W. D. Robb; Second Vice-President, L. R. Johnson; Executive Committee: T. McHattie, S. King, H. H. Vaughan, A. A. Maver, W. N. Dietrich, C. Manning, J. H. Callaghan. Audit Committee: A. A. Goodchild, J. F. Reynett, P. R. Diamond. The club has now a membership of over 400, and its financial condition is very satisfactory.

The Canadian Pacific Despatch has removed its offices in Boston, Mass., to 33 Broad Street.

The Rutland Road's city ticket office in Montreal has been removed from 141 to 130 St. James St., where T. M. Fallon, City Passenger Agent, will have his headquarters.

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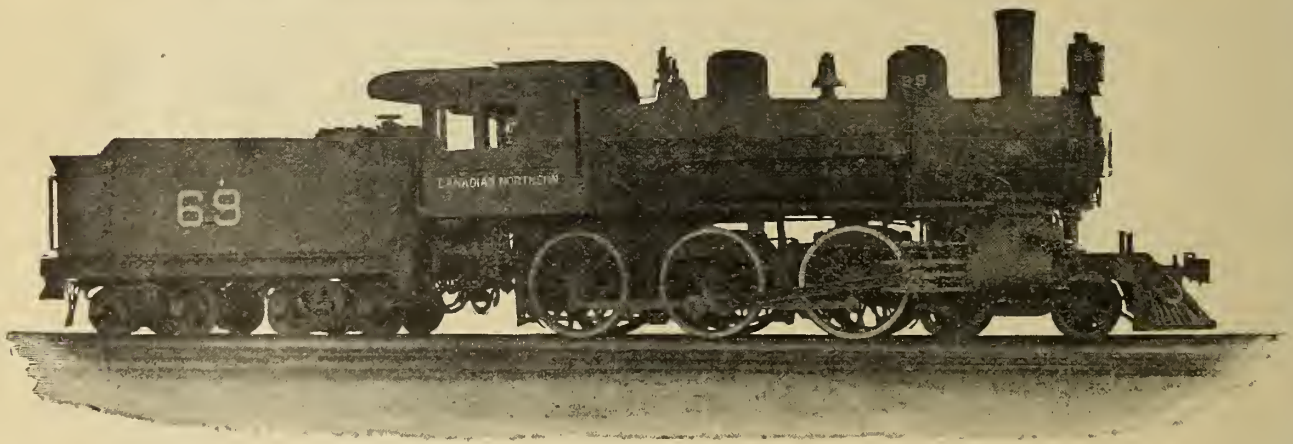

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STEAM RAILWAY STATISTICS FOR YEAR ENDED JUNE 30, 1905.

In this table the minus mark (–) before figures in the net earnings column shows that there was a deficit in the operations of the line to the extent of the figures given. The numbers in brackets—thus (1)—after the name of a railway refer to notes on page 311.

Name of Railway	Mileage	Gross Earnings	Net Earnings	Proportion of earnings to working expenses	Earnings per train mile	Operating per train mile	Train Mileage	Engine Mileage	Passengers Carried	Freight Carried
				p. c.	Cts.	Cts.	Miles.	Miles		Tons
Alberta Ry. and Coal Co. (1).	.....	$ 49,569.11	$ 20,680.26	171	3.40	1.98	14,559	30,731	4,401	33,837
Alberta Ry. and Irrig. Co. (1).	113.72	106,864.39	12,660.36	113	1.80	1.60	59,356	104,107	10,782	73,491
Algoma Central & Hud. Bay..	91.50	326,924.55	70,695.11	127	0.76	0.59	427,767	427,767	14,847	488,386
Atlantic & Lake Superior (2).	100.00	60,231.23	– 3,320.28	94	0.86	0.91	70,000	70,000	15,119	26,511
Bay of Quinte (3).....	93.37	274,639.00	89,241.05	148	1.39	0.94	196,408	196,408	104,771	347,040
Bedlington and Nelson (4)...	15.30	1,162.05	– 6,504.00	15	0.53	3.47	2,212	2,310	2,225	154
Beersville Coal & Ry. Co. (5).	8.63	1,084.50	– 1,575.50	41	0.35	0.86	3,100	3,200	850	3,727
British Yukon.....	90.32	380,145.85	221,562.89	239	5.43	2.26	70,004	75,547	10,208	35,990
Brockville, Westport & N.W.	45.00	54,045.76	23,900.02	179	0.93	0.52	58,080	58,080	62,477	20,267
Bruce Mines and Algoma*...	16.62	4,661.73	– 5,404.60	46	0.86	1.86	5,400	5,400	7,012	22,120
Buctouche and Moncton.....	32.00	20,240.85	– 2,933.07	87	1.08	1.23	18,752	20,338	13,081	23,692
Canada Atlantic (6).....	458.60	1,824,291.62	502,604.36	137	1.36	0.98	1,342,304	1,707,882	452,433	1,486,475
Canada Coals and Ry. Co...	12.00	42,548.85	12,800.85	143	1.84	1.29	23,069	31,069	11,273	99,567
Canada Southern (7).....	382.19	6,529,304.50	442,336.51	107	1.97	1.84	3,315,423	3,315,423	822,982	4,788,586
Canadian Government Rys.										
Intercolonial (8).....	1,448.96	6,738,522.83	– 1,725,303.92	80	0.93	1.16	7,296,745	9,400,293	2,810,960	2,782,257
Prince Edward Island.....	209.00	217,330.61	– 153,133.83	59	0.63	1.08	343,301	442,493	235,194	73,969
Canadian Northern (9).....	1,880.57	4,190,211.96	1,545,482.32	158	1.82	1.15	2,304,138	2,853,283	486,591	1,368,896
Canadian Pacific (10).....	8,298.00	49,731,463.32	15,592,953.14	145	1.98	1.35	25,110,835	34,128,911	6,861,892	11,861,889
Cape Breton.....	31.00	7,821.51	– 7,725.99	50	0.42	0.84	18,330	18,330	6,999	4,022
Caraquet (11).....	84.78	46,193.93	– 6,036.39	88	1.09	1.24	42,034	42,034	8,055	28,813
Carillon and Grenville (12)...	13.00	1,872.85	– 1,758.54	51	0.45	0.87	4,150	4,470	5,068	150
Central Ontario (13).....	134.60	207,809.35	66,323.43	146	1.30	0.89	159,100	179,422	111,504	207,396
Crow's Nest Southern.....	53.20	109,708.86	42,197.51	162	2.64	1.63	41,431	59,378	7,012	141,239
Cumberland Ry. and Coal Co.	32.00	124,745.83	38,731.42	145	0.15	0.10	815,996	845,802	36,963	493,187
Dominion Atlantic (14).....	220.50	1,055,993.14	203,080.96	123	1.97	1.59	535,739	535,739	295,674	285,777
Edmonton, Yuk. & Paci. (15).	4.50	13,805.74	– 1,286.14	91	2.00	2.18	6,900	7,000	17,326	31,955
Elgin and Havelock.....	28.00	9,229.87	1,350.11	117	0.67	0.57	13,746	13,746	8,159	8,292
Esquimalt and Nanaimo.....	78.00	311,148.98	116,218.77	159	1.10	0.69	282,189	282,189	165,411	183,736
Grand Trunk (16).....	3,113.04	26,386,590.83	8,632,044.87	149	1.53	1.02	17,274,813	21,958,136	8,893,509	12,043,524
Great Northern (17).....	244.30	421,495.78	11,302.65	103	1.27	1.23	332,905	384,632	188,115	291,987
Halifax and Southwestern (18)	193.70	113,209.36	4,270.21	104	1.35	1.30	83,622	123,638	78,327	57,601
Halifax and Yarmouth (18)..	50.20	36,108.19	6,489.75	121	0.76	0.62	47,350	49,264	48,866	8,086
Hampton & St. Martins.....	29.00	6,271.11	– 3,758.91	62	0.48	0.77	12,924	12,924	6,770	4,716
Hereford (19).....	50.30	58,601.43	– 25,151.50	70	0.86	1.23	67,980	106,514	23,439	145,365
Inverness Ry. and Coal Co...	61.00	129,288.43	36,559.50	139	1.50	1.08	86,102	107,642	29,118	183,406
Irondale, Bancroft & Ottawa.	48.00	25,803.95	436.00	102	0.78	0.77	33,000	35,280	12,515	25,829
Kaslo and Slocan.....	31.80	28,765.97	– 28,124.94	50	1.29	2.56	22,197	34,899	6,301	18,104
Kent Northern (20).....	27.00	23,305.78	2,658.24	112	1.29	1.14	18,000	18,250	7,285	75,792
Kettle River Valley.....	3.86	3,242.58	– 854.09	78	1.28	1.62	2,525	2,525	2,016	30,328
Kingston and Pembroke.....	112.85	190,885.18	23,402.91	114	1.20	1.05	159,630	159,630	40,522	116,825
Lake Erie and Detr. Riv. (21)	223.41	1,254,022.36	251,248.18	125	1.33	1.07	938,153	1,240,503	525,844	1,722,632
Liverpool and Milton.....	5.00	6,163.08	2,110.72	152	0.80	0.52	7,710	7,710	20,200	15,500
Manitoulin and North Shore .	16.00	42,752.87	13,629.51	147	0.47	0.32	89,728	89,728	4,079	176,353
Massawippi Valley (22).....	35.46	166,462.65	45,207.10	137	1.02	0.75	161,245	225,405	136,661	403,744
Midland of Nova Scotia.....	57.87	58,548.55	948.59	101	0.68	0.67	85,450	85,572	44,362	41,591
Montreal & Atlantic (23).....	163.40	412,703.54	– 78,407.87	84	1.09	1.29	381,448	490,042	233,079	819,954
Montreal and Prov. Line (24)	58.60	76,998.99	– 15,339.83	82	0.90	1.08	85,857	97,277	100,143	81,534
Montreal and Vermont Jct.(24)	23.60	186,179.54	72,372.26	163	1.34	0.82	138,451	146,318	110,828	1,101,732
Morrissey, Fernie and Michel.	10.85	56,225.60	9,382.43	120	2.63	2.20	21,368	21,368	6,916	304,826
Nelson & Fort Sheppard (25).	55.42	100,716.75	4,732.48	105	1.92	1.83	52,310	53,682	21,374	44,392
New Brunswick and P.E.I...	36.00	24,049.60	5,938.03	133	0.70	0.52	34,316	51,670	16,739	32,692
New Brunswick Southern....	82.50	34,839.14	– 10,961.80	76	0.68	0.89	51,022	51,022	12,157	18,531
New Westminster South. (26)	24.10	36,331.87	– 8,726.05	80	1.11	1.38	32,759	41,185	33,233	31,070
Nosbonsing and Nipissing....	5.50	40,050.48	3,337.54	109	0.32	0.29	12,380	13,618	.....	23,362
Nova Scotia S. & C. Co.'s Ry.	12.50	6,142.90	– 6,467.01	49	0.49	1.01	12,500	28,000	6,874	8,429
Orford Mountain.....	38.50	23,463.12	– 3,142.81	88	0.64	0.73	36,440	36,440	8,414	32,045
Ottawa and New York (27)..	56.79	122,459.87	1,304.69	101	1.08	1.07	112,764	112,764	106,210	81,666
Phillipsburg Ry. & Quarry Co.	7.50	1,594.23	– 3,248.09	33	1.02	3.10	1,560	1,560	126	5,040
Princeton Br.of W.Co.Ry.U.S.	4.75	7,210.45	– 6,106.57	54	1.56	2.89	4,602	6,303	36,654	22,256
Qu'Ap., Long Lake & Saskat.	253.96	578,028.60	103,417.91	121	1.98	1.63	291,363	334,299	75,769	156,636
Quebec Central (28).....	213.50	783,222.13	243,532.92	145	1.19	0.82	657,838	668,469	243,639	502,057
Quebec and Lake St. John...	244.00	497,205.87	136,236.25	137	1.42	1.30	349,015	528,602	266,459	321,391
Quebec Ry.Lt.& Pr. Co. (29)..	30.00	44,478.67	9,357.93	127	1.17	0.92	37,999	38,349	130,677	44,813
Quebec Southern*.....	143.50	168,653.37	– 17,177.65	...	.....	.....	234,930	236,011	78,309	141,755
Red Mountain (26).....	9.59	41,980.16	– 135.65	99	1.36	1.37	30,790	36,822	13,273	158,065
Rutland and Noyan (30).....	3.39	7,806.89	1,541.69	125	1.00	0.80	7,767	7,767	8,959	252,321
Salisbury and Harvey.....	45.00	27,297.62	– 3,835.99	87	1.13	1.29	24,090	30,761	12,582	39,730
Schomberg and Aurora.....	14.40	6,659.09	– 2,738.25	71	0.32	0.45	20,856	20,856	10,912	485

(*Continued on page* 311)

STEAM SHOVELS

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Steam Railway Statistics for Year Ended June 30, 1905—(*Continued from page 309*)

Name of Railway	Mileage	Gross Earnings	Net Earnings	Proportion of earnings to working expenses	Earnings per train mile	Operating per train mile	Train Mileage	Engine Mileage	Passengers Carried	Freight Carried
Stanstead, Shef'd & Cha.(24).	43.00	74,747.58	18,637.93	133	1.03	0.77	72,540	88,259	150,540	1,118,902
St. Clair Tunnel (31).....	2.25	217,611.00	66,579.44	144	....	....	.....	100,305	.....	.....
St.Lawrence & Adirond'k (32)	32.82	248,586.94	104,376.83	172	1.22	0.71	202,819	217,219	267,491	399,782
St. Mary's River (1).....	.....	8,756.67	402.21	104	1.13	1.08	7,732	8,465	2,875	4,255
Sydney and Louisburg.....	52.74	55,347.18	- 325,581.50	14	0.27	1.88	201,564	517,265	48,931	3,194,774
Temiscouata.....	113.00	145,321.31	14,943.70	111	0.93	0.83	155,949	180,255	48,775	100,851
Temiskaming & N. Ontario...	113.00	74,821.94	26,476.00	154	1.97	1.27	37,931	39,243	15,837	35,490
Tillsonburg,L.Erie & Pacific..	35.33	32,773.84	- 35,211.51	41	0.53	1.11	61,040	61,040	33,772	41,170
Thousand Islands.....	6.33	34,870.62	6,730.22	124	1.00	0.81	34,762	34,762	42,005	26,173
Toronto, Ham. & Buffalo (33)	83.67	660,228.99	168,917.60	134	1.88	1.40	349,580	349,580	307,187	962,185
Vancouver, Vict. & East. (26)	45.87	89,952.22	24,394.78	139	2.61	1.90	34,385	38,765	27,303	105,755
Vancouv., West. & Yuk. (34)	14.60	21,823.42	- 21,419.17	50	0.91	1.80	24,080	24,080	30,589	12,080
Victoria and Sidney (26).....	16.26	26,987.05	- 7,420.84	78	0.96	1.22	28,172	28,172	46,456	23,037
Victoria Ter.Ry.& F.Co. (26).	18.40	15,115.36	- 13,251.60	53	1.20	2.26	12,568	12,568	54,512	36,750
Wellington Colliery Co.....	10.75	5,032.65	- 36,139.18	12	0.24	1.93	21,296	21,296	4,475	282,823
York and Carleton.....	5.75	2,962.91	- 938.09	76	0.41	0.54	7,199	7,199	4,400	2,569
	*20,487.27	*$106,467,198.65	*$26,489,625.05	....	....	....	*65,934,114	*84,335,732	*25,288,723	*50,893,957

Notes to Steam Railway Statistics.

(1) The Alberta Ry. and Irrigation Co. took over the Alberta Ry. and Coal Co., and the St. Mary's River Ry. from Oct. 1, 1904. The mileage given, 113.72, includes the A. Ry. and C. Co.'s line, 66.72 miles, and the St. M. R. Ry., 47 miles, and the figures in the other columns give the combined earnings for nine months from Oct. 1, 1904, to June 30, 1905; the operations of the two companies for the three months from July 1 to Sept. 30, 1904, being given separately under the old names.

(2) The Atlantic and Lake Superior Ry. mileage of 100 is the Baie des Chaleurs Ry. which is being operated by the bondholders. The Great Eastern Ry., 23 miles, and the Ottawa Valley Ry., 7 miles, are not under traffic.

(3) The Bay of Quinte Ry. includes the Kingston, Napanee and Western Ry.

(4) The Bedlington and Nelson Ry. has running powers over the C.P.R. from Creston Jct., to Sirdar Jct., B.C., 8.67 miles. It is operated in the interests of the Great Northern Ry. (U.S.).

(5) The figures given for the Beersville Coal and Ry. Co.'s line are for six months from Jan. 1, 1905.

(6) The Canada Atlantic Ry. mileage includes the Ottawa, Arnprior and Parry Sound Ry., 400.30 miles, and the leased lines: Central Counties Ry., 37.40 miles; Pembroke Southern Ry., 20.90 miles.

(7) The Canada Southern Ry. mileage includes its leased lines: Sarnia, Chatham and Erie Ry., 7.00 miles, and the Leamington and St. Clair Ry., 15.95 miles. It has 149.34 miles of double track. The C. S. Ry. is controlled by the Michigan Central Rd., one of the New York Central and Hudson River Rd. lines.

(8) The Canadian Government line, the I.C.R., includes the Canada Eastern Ry., the Fredericton and St. Mary's Ry. Bridge Co., and the Drummond County Ry., but does not include the Windsor branch, 32 miles, which is leased to the Dominion Atlantic Ry. It has also running powers over the G.T.R. from Point Levis to Hadlow, Que., 1.50 miles; from Chaudiere Curve to Chaudiere, Que., 1.18 miles; from St. Rosalie Jct. to Montreal, 37.62 miles; total 40.30 miles.

(9) The Canadian Northern Ry. mileage includes the lines leased from the Manitoba Government, viz.: Northern Pacific and Manitoba Ry., and Portage and Western Ry., 354.65 miles; together with the Winnipeg Great Northern Ry., 40 miles; Port Arthur, Duluth and Western Ry., 85 miles; Manitoba and South-Eastern Ry., 107.90 miles; Lake Manitoba Ry., and Canal Co.'s line, 125 miles; Ontario and Rainy River Ry., 164 miles. It also operates 56 miles of line in Minnesota, which connects the O. and R.R.Ry. with the M.S. Ry. The figures given refer to the operations of the Canadian lines only.

(10) The C.P.R. mileage includes lines owned, 5,095.50 miles; leased lines: Atlantic and North-west Ry. 201.40 miles; British Columbia Southern Ry., 20.40 miles; Calgary and Edmonton Ry., 296.20 miles; Cap de la Madeleine Ry., 2.30 miles; Columbia and Kootenay Ry., 59.50 miles; Columbia and Western Ry., 157.10 miles; Credit Valley Ry., 175.70 miles; Fredericton Ry., 22.10 miles; Great North-west Central Ry., 111.70 miles; Guelph Jct. Ry., 15 miles; Kootenay and Arrowhead Ry., 33.20 miles; Lindsay, Bobcaygeon and Pontypool Ry., 38.70 miles; Manitoba Southwestern Colonization Ry., 215.70 miles; Manitoba and Northwestern Ry., 294.60 miles; Montreal and Ottawa Ry., 93.50 miles; Montreal and Lake Maskinonge Ry., 11 miles; Nakusp and Slocan Ry., 36.50 miles; New Brunswick Ry., 174.60 miles; New Brunswick and Canada Ry., 117.60 miles; Northern Colonization Ry., 23.50 miles; Ontario and Quebec Ry., 473.20 miles; Ottawa, Northern and Western Ry., 158.70 miles; Shuswap and Okanagan Ry., 50.80 miles; St. John Bridge and Ry. Extension, 2 miles; St. John and Maine Ry., 91.80 miles; St. Lawrence and Ottawa, 58.30 miles; St. Stephen and Milltown Ry., 4.60 miles; Tobique Valley Ry., 27.50 miles; Toronto, Grey and Bruce Ry., 189.10 miles; Toronto, Hamilton and Buffalo Ry., 2.70 miles; West Ontario Pacific Ry., 26.60 miles; Vancouver and Lulu Island Ry., 16.90 miles. It has running rights over the G.T.R. from Toronto to Hamilton Jct., 35.80 miles; and over the Canada Atlantic Ry. from Montreal and Ottawa Jct. to Ottawa, 0.90 miles; total 36.70 miles. The Ottawa, Northern and Western Ry. has running powers over 2.50 miles of the Hull Electric Ry. The C.P.R. has 35.70 miles of double track.

(11) The Caraquet Ry. also operates the Gulf Shore Ry., 16.78 miles.

(12) The Carillon and Grenville Ry. is operated during the summer only in connection with the steamers of the Ottawa Navigation Co.

(13) The Central Ontario Ry. mileage includes the Marmora Ry. and Mining Co.'s line, formerly the Ontario, Belmont and Northern Ry., 9.60 miles.

(14) The Dominion Atlantic Ry. mileage includes the Windsor and Annapolis Ry., 87.50 miles; Cornwallis Valley Ry., 14 miles; Yarmouth and Annapolis Ry., formerly Western Counties Ry., 87 miles; Windsor branch, leased from the Intercolonial Ry., 32 miles. It has also running powers over the I.C.R. from Windsor Jct. to Halifax, 14 miles.

(15) The Edmonton, Yukon and Pacific Ry. has running rights over the Calgary and Edmonton Ry. from Strathcona Jct. to Strathcona, Alta., one mile.

(16) The G.T.R. mileage includes the following lines: G.T.R., 883.35 miles; Great Western Ry., 561.80 miles; Brantford, Norfolk and Port Burwell Ry., 34.39 miles Buffalo and Lake Huron Ry., 160.30 miles; G.T., Georgian Bay and Lake Erie Ry., 175.62 miles; Owen Sound branch, 12.40 miles; London, Huron and Bruce Ry., 68 miles; Waterloo Jct. Ry., 10.25 miles; South Norfolk Ry., 17 miles; Wellington, Grey and Bruce Ry., 168.18 miles; Northern Ry., 163.07 miles; North Simcoe Ry., 33 miles; Hamilton and Northwestern Ry., 172.23 miles; Northern Pacific Ry., 115.43 miles; Grand Jct. Ry., 85.54 miles; Toronto and Nipissing Ry., 85 miles; Lake Simcoe Jct., Ry., 26 miles; Victoria Jct. Ry., 53 miles; Whitby, Port Perry and Lindsay Ry., 46 miles; Jacques Cartier Union Ry., 6.50 miles; Montreal and Champlain Jct. Ry., 6.28 miles. It has running powers over the Chaudiere branch of the Intercolonial Ry., 5.77 miles. It also operates the Magnetawan Ry., 1.91 miles. It has 561.50 miles of double track.

(17) The Great Northern Ry. of Canada mileage includes the Lower Laurentian Ry., and Montreal and Gatineau Colonization Ry., and it also operates the Chateauguay and Northern Ry., 36.20 miles.

(18) The Halifax and South-Western Ry. includes the old Nova Scotia Central Ry.

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the Nova Scotia Southern Ry. The earnings, etc., include also those of the Halifax and Yarmouth Ry., which was taken over May 25, 1905. The H. and Y. Ry. earnings for the period from July 1, 1904, to May 25, 1905, are given separately.

(19) The Hereford Ry. mileage includes the Dominion Lime Co.'s line. It is operated by the Maine Central Rd.

(20) The Kent Northern Ry. mileage includes the St. Louis and Richibucto Ry., 7 miles.

(21) The Lake Erie and Detroit River Ry. mileage includes the Erie and Huron Ry., 199.41 miles; and the leased line, London and Port Stanley Ry., 24 miles. The line is owned by the Pere Marquette Rd.

(22) The Massawippi Valley Ry. has running powers over the G.T.R. from Lennoxville to Sherbrooke, Que., 2.95 miles. The M.V. Ry. is leased to the Boston and Maine Rd.

(23) The Montreal and Atlantic Ry., formerly the South-Eastern Ry., mileage includes also the Lake Champlain and St. Lawrence Jct. Ry., 60.50 miles. On the old South-Eastern Ry. there are 5.50 miles of double track. It is operated by the C.P.R.

(24) The Montreal and Province Line (formerly the Montreal Province and Boston Ry.), the Montreal and Vermont Jct. and the Stanstead, Shefford and Chambly Ry., are leased to the Central Vermont Ry., which is controlled by the G.T.R.

(25) The Nelson and Fort Sheppard Ry. has running powers over the C.P.R. from Five Mile Point to Nelson, B.C., 4.76 miles. It is operated in the interests of the Great Northern Ry. (U.S.).

(26) The New Westminster Southern Ry.; The Red Mountain Ry.; Vancouver, Victoria and Eastern Ry.; Victoria Terminal Ry., and Ferry Co., and Victoria and Sidney Ry., are operated by, or in the interests of, the Great Northern Ry. (U.S.).

(27) The Ottawa and New York Ry. is owned by the New York Central and Hudson River Rd.

(28) The Quebec Central Ry. has running powers over the Intercolonial Ry. from Harlaka Jct. to Levis, Que., 5 miles.

(29) The Quebec Ry., Light and Power Co. operates what was formerly known as the Quebec, Montmorency and Charlevoix Ry. as a steam and electric railway. The returns here given are for the operation of the line by steam.

(30) The Rutland and Noyan Ry. is operated by the Rutland Rd., which is owned by the New York Central and Hudson River Rd.

(31) The earnings of the St. Clair Tunnel are from tolls on vehicles hauled through the tunnel.

(32) The St. Lawrence and Adirondack Ry. has running powers over the G.T.R. from Valleyfield to Beauharnois, Que., 13.30 miles; and over the C.P.R. from Adirondack Jct. to Montreal, 8.70 miles. It is operated by the New York Central and Hudson River Rd.

(33) The Toronto, Hamilton and Buffalo Ry. has 4.69 miles of double track. It is owned by the New York Central and Hudson River Rd., and the C.P R.

(34) The returns of the Vancouver, Westminster and Yukon Ry. are for a portion of the year only, from Aug. 22, 1904, to June 30, 1905. It is operated in the interests of the Great Northern Ry. (U.S.).

*The returns given for the B.M. and A. Ry. are for 1903-04, the line not being in operation during the whole of 1904-05. The Quebec Southern Ry. comprises the United Counties Ry., the East Richelieu Valley Ry., and the South Shore Ry. It has been operated by a Receiver, and no reports have been received by the Department since the year ended June 30, 1903. As the returns for these two lines are not for the year ended June 30, 1905, the totals are incorrect to that extent.

Quebec and Lake St. John Railway.

The annual meeting was held in Quebec, May 10. Following are extracts from the report: The number of passengers carried during the year on the whole system was 301,725, and the number of tons of freight 345,001. In the previous year the figures were 266,459 passengers, and 321,391 tons of freight. The freight consisted of the following no. of cars, 1,814 cordwood, 3,104 pulpwood, 4,101 sawn lumber, 505 square timber, 459 ties, 67 logs and poles, 1,625 pulp and paper, 128 brick and stone, 66 cheese, 264 grain, 5,166 general merchandise; total 17,299 cars, weighing 345,001 tons. One of the surest tests of the progress of the district traversed by the railway is the rapid development of the dairy industry. Last year the railway transported 3,041,011 lbs. of cheese as compared with 2,693,577 in the previous year. The value of cheese and butter manufactured in the district last year is estimated at $700,000.

The construction of the branch line to La Tuque has been carried on by contractor Paquet, with a large force, since the date of the previous annual meeting, and without any interruption during the winter. The work is proving more costly than was estimated, owing to the material in a number of the cuttings proving to be rock instead of earth and gravel. Nevertheless, it is expected that this branch will be completed by the end of Sept., or at least sufficiently near completion to carry the traffic which will then be available. It is expected that this will be considerable, because the first division of the new Transcontinental railway, which will touch La Tuque from another direction, has been placed under contract, and our new branch will be the most rapid and economical means of transportation for the men and materials required for their work. Negotiations are in progress for the development of the great water power at La Tuque, and several large industries at this point are now under consideration. The construction of the branch line from Valcartier to Gosford has been completed for 4¼ miles, to a point where a considerable traffic in timber, pulpwood and cordwood is already available. The right of way has been secured for the short branch through Roberval to the Government wharf on Lake St. John, and the line will be built as soon as a subsidy contract has been executed with the Government.

The proceeds of the issue of £150,000 of prior lien bonds are being expended—in addition to building the branches above referred to—upon betterments on the main line. The mileage between Roberval, Lake Bouchette and Chicoutimi has been entirely reballasted and embankments widened. New locomotive houses have been built at Lake Edward and Chicoutimi, the new bridge over the Rat river at Chicoutimi has been completed, and the wooden bridges at Lake Bouchette and Rondeau River have been rebuilt in steel and masonry. The dock accommodation at Quebec is proving insufficient, and we are now building a dock 700 ft. long at our Quebec terminus, suitable for canal boats and other light draught vessels.

The pulp and cardboard mills at Chicoutimi, Jonquieres, Ouiatchouan, Peribonca and St. Raymond, continue to give the railway a large business. A paper mill is being built at St. Raymond, a sulphite mill at Jonquieres, and large new sawmills at St. Raymond, and Riviere à Pierre. The Metabetchouan Pulp Co. has been reorganized and it is hoped that this industry will now be carried out.

The increased cost of the branch to La Tuque and the need of more rolling stock and other betterments have made it necessary to issue the remaining £150,000 of authorized prior lien 4% bonds rather sooner than had been intended. Consequently meetings of the bondholders were called in London in Feb. last, and after explanations by the London agents of the company, Coates Son & Co., and by the General Manager, who was sent from Canada to attend the meetings, the issue of the remaining bonds was unanimously agreed to.

The colonization movement to the Lake St. John country has continued to progress, and 2,516 new settlers and their effects were carried into the district during the year; 980 of these came from the U.S.

The directors and officers elected for the current year are: President, G. Le Moine; Vice-Presidents, W. Hanson, J. T. Ross; other directors, T. A. Piddington, Hon. J. Tessier, C. A. Hanson, E. Beaudet, F. W. Ross, H. J. Beemer, E. Hanson. The non-elective directors are the Mayor of Quebec, Judge Gagne representing Chicoutimi, and G. Tanguay representing the Quebec Government.

June Birthdays.

Many happy returns of the day to—

Harry Abbott, President Vancouver and Lulu Island Ry., ex-General Superintendent C.P.R., Vancouver, B.C., born at Abbotsford, Que., June 14, 1829.

Jas. Anderson, Manager Sandwich, Windsor and Amherstburg Ry., Windsor, Ont., born at Ayr, Ont., June 20, 1851.

F. F. Backus, General Freight and Passenger Agent Toronto, Hamilton and Buffalo Ry., Hamilton, Ont., born at Rochester, N.Y., June 4, 1860.

Archer Baker, European Manager C.P.R., London, Eng., born at York, Eng., June 21, 1845.

F. P. Brady, General Superintendent Lake Superior Division C.P.R., North Bay, Ont., born at Haverhill, N.H., June 22, 1853.

A. H. N. Bruce, C.E., Assistant Chief Engineer Toronto and Hamilton Ry., Toronto, born at Ballyscullion, County Derry, Ireland, June 18, 1854.

E. Callaghan, Agent Hamilton Steamboat Co., Toronto, born at Kingston, Ont., June 17, 1875.

J. E. Dalrymple, General Freight Agent G.T.R., Montreal, born there, June 1, 1869.

W. H. Darcy, General Claims Agent C.P.R. Western Lines, Winnipeg, Man., born at Manorhamilton, Leitrim, Ireland, June 23, 1859.

A. E. Doucet, Division Engineer Transcontinental Ry. Surveys, Quebec, born at Montreal, June 9, 1860.

G. H. Eaton, Assistant Master Car Builder, C.P.R. Western Lines, Winnipeg, born in Staffordshire, Eng., June 9, 1860.

W. F. Fitch, President and General Manager Duluth, South Shore and Atlantic Ry. and Mineral Range Rd., Marquette, Mich., born at Circleville, Ohio, June 28, 1839.

A. A. Goodchild, Auditor of Stores and Mechanical Accounts C.P.R., Montreal, born at Peckham, London, Eng., June 3, 1866.

E. J. Hebert, General Agent C.P.R. Passenger Department, Montreal, born there June 18, 1864.

Carl Howe, Assistant General Freight Agent Michigan Central Rd., Buffalo, N.Y., born at Berrien Springs, Mich., June 11, 1870.

L. R. Johnson, Assistant Superintendent of Motive Power, C.P.R. Eastern Lines, Montreal, born at Abingdon, Berks., Eng., June 22, 1855.

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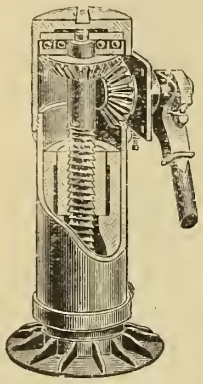
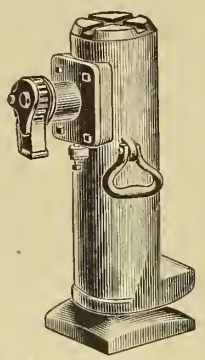


Sectional View



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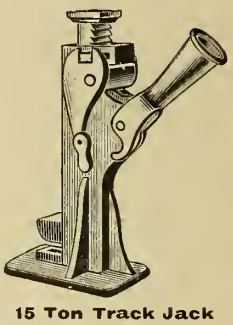
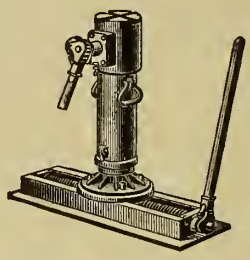
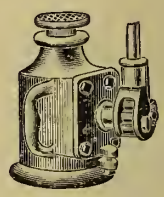


15 Ton Track Jack



Traversing Jack



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L. K. Jones, Secretary Department of Railways and Canals, Ottawa, born at Port Hope, Ont., June 9, 1849.

Jas. Kent, Manager C.P.R. Telegraphs, Montreal, born there June 15, 1854.

A. C. Lytle, Superintendent and General Freight and Passenger Agent, Orford Mountain Ry., Eastman, Que., born at Hemmingford, Que., June 6, 1854.

W. R. MacInnes, Freight Traffic Manager C.P.R., Montreal, born at Hamilton, Ont., June 7, 1867.

E. H. McHenry, Fourth Vice-President New York, New Haven and Hartford Rd., and ex-Chief Engineer, C.P.R., born at Cincinnati, Ohio, June 25, 1859.

C. E. McPherson, General Passenger Agent C.P.R. Western Lines, Winnipeg, born at Chatham, Ont., June 7, 1861.

W. D. Matthews, director C.P.R., Toronto, born at Burford, Ont., June 22, 1850.

L. Mulkern, canvassing freight agent C.P.R., Toronto, born at London, Ont., June 18, 1871.

F. Price, Superintendent Car Service G.T.R., Montreal, born there June 11, 1864.

Jas. Stephenson, ex-Chief Superintendent G.T.R., Weston-Super-Mare, Somerset, Eng., born there June 2, 1837.

Recent Nova Scotia Legislation.

Among the acts passed at the recent session of the Nova Scotia Legislature were the following:

Acadia Coal Co.—Amending the act of incorporation passed 1865 and the acts amending the same.

Arisaig and Country Harbor Iron and Ry. Co.—Act of incorporation.

Atlantic Grindstone, Coal and Ry. Co.—Act confirming the amalgamation of the A. G. C. and Ry. Co., the Fundy Coal Co., and the Atlantic Grindstone Co.

Barrington Telephone Co.—Amending the act of incorporation pased 1885.

British Coal and Ry. Co.—Amending the act of incorporation passed 1905.

Colchester Coal and Ry. Co.—Authorizing the county of Colchester to exempt the company's property from taxation.

Davison Tramway Co.—Amending the act of incorporation passed in 1903-4.

Dominion Coal Co.'s Railway.—Act relating to the D.C. Co.'s railway between George St. and old pier at the Sydney and Louisburg Ry., Sydney.

East Pictou Telephone Co.—Act of incorporation.

Egerton Tramway Co.—Amending the act of incorporation passed in 1902.

Halifax and Eastern Ry.—Act of incorporation.

Halifax and Guysboro.—To provide for the construction of a railway between these places.

Halifax and Southwestern Ry.—To enable the company to divert a road in Halifax county.

Halifax and Yarmouth Ry.—To provide for the assessing of land damages along the railway.

Halifax Electric Tramway Co.—In respect to taxation.

Lunenburg Marine Insurance Co.—Amending the act of incorporation passed in 1903-04.

Margaree Coal and Ry. Co.—To enable the municipality of Inverness to borrow money to pay a bonus towards the construction of this railway.

Maritime Coal and Ry. Co.—Amending the act of incorporation passed in 1903-04.

Middleton and Victoria Beach Ry.—Confirming the mortgage of the line to the Crown.

New Cumberland Telephone Co.—Act of incorporation.

North Mountain Ry.—Amending the act of incorporation passed in 1902, and acts amending the same.

Railway in Inverness County.—Amending the act of 1905 providing for aid for the construction of a railway in the county.

Railway in Richmond County.—Providing for the granting of municipal aid towards the construction of a railway in the county.

Railway Land Damages in Liverpool.—To enable the town of Liverpool to borrow money to pay for land acquired for railway purposes.

Railways.—Amending Chap. 99, Revised Statutes of 1900, respecting railways; and a second amending Chap. 73, Revised Statutes of 1900, and repealing Chap. 4 of 1905, amending Chap. 99 of the Revised Statutes of 1900 respecting railways.

Shelburne.—Act authorizing the municipality to borrow money for railway damages and other charges incidental thereto.

Standard Coal and Ry. Co.—Amending the act of incorporation of 1903.

Yarmouth Telephone Co.—Act of incorporation.

Recent Ontario Legislation.

The Ontario Legislature at its recent session passed the following acts among others:

Algoma Central and Hudson Bay Ry.—Respecting aid to the same and the associated industries at Sault Ste. Marie.

Bell Telephone Memorial Association.—Granting charter of incorporation to an association to erect a memorial at Brantford to A. Graham Bell.

Dunnville, Wellandport and Beamsville Electric Ry.—Act of incorporation.

Hamilton, Caledonia and Lake Erie Ry.—Extending time for construction.

Hamilton and Guelph Jct. Ry.—Act of incorporation.

Kingston, Gananoque and Perth Electric Ry.—Extending time for construction.

Kingston, Portsmouth and Cataraqui Electric Ry.—Rearranging capital stock, etc., and confirming agreements with municipalities.

North Midland Ry.—Extending time for construction, and granting extension from previously authorized terminus.

Ontario West Shore Electric Ry.—Extending time for construction.

Pembroke Radial Ry.—Act of incorporation.

Pembroke Southern Ry.—Authorizing an extension to Petawawa.

Peterborough Radial Ry.—Extending time for construction.

Port Credit, Brampton and Guelph Ry.—Act of incorporation.

Port Elgin Spur Line.—Act of incorporation.

Railway and Municipal Board.—Providing for the appointment of a provincial board.

Rondeau, Ridgeway and Wallaceburg Ry.—Act of incorporation.

St. Catharines, Pelham and Welland Electric Ry.—Amending charter of incorporation passed 1903.

South-Western Traction Co.—Extending time for construction.

Superior and James Bay Ry.—Extending time for construction.

Telephones.—(1) Respecting the establishment of local municipal telephones. (2) Incorporating the Provincial Long Distance Telephone Co.

Toronto and North-Eastern Ry.—Act of incorporation.

Toronto and York Radial Ry.—Amending act of incorporation and acts amending the same.

Railway Finance, Meetings, etc.

Central Ontario Ry.—The annual meeting of shareholders was held May 16. Following are the officers and directors for the current year: President, S. J. Ritchie; Vice President, C. E. Ritchie; Receiver and Manager, G. Collins; other directors, T. M. Kirkwood, J. H. Stewart, W. S. Jaques, R. Fraser; Treasurer, J. D. Rowe.

Great Northern Ry. of Canada.—A meeting of shareholders was called to be held at Toronto, May 28, for the purpose of considering and approving certain agreements for the amalgamation of the company with the Quebec, New Brunswick and Nova Scotia Ry., and the Chateauguay and Northern Ry.

Joliette and Brandon Ry.—A meeting of shareholders was held at Montreal, May 22, for the purpose of leasing the company's line to the C.P.R., arranging the form of lease, and of issuing first mortgage bonds upon the security of the railway. M. S. Lonergan, 7 Place d'Armes, Montreal, is Secretary-Treasurer.

Lake Erie and Detroit River Ry.—Following are the officers and directors for the current year: President, J. Harman, Cincinnati, Ohio; Vice-President, G. W. Perkins, New York; other directors, A. Leslie, F. H. Walker, Walkerville, Ont.; A. H. Skerving, Chatham, Ont.; Secretary, T. J. Walsh, Cincinnati; Treasurer, J. E. Howard.

Montreal and Vermont Jct. Ry.—Following are the officers for the current year: President, C. M. Hays; Vice-President, E. H. Fitzhugh; Auditor, W. G. Crabb; Secretary-Treasurer, H. H. Gilmour; Assistant Secretary-Treasurer, W. H. Chaffee; Managing Directors: C. M. Hays, E. H. Fitzhugh, and G. C. Jones.

Qu'Appelle, Long Lake and Saskatchewan Ry.—Net earnings for March, $12,418.20, against $28,578.90 for March, 1905.

Quebec Central Ry.—Gross earnings for Mar., $76,414.98; net earnings $30,157.37, against $66,103.30 gross, and $25,686.30 net, for Mar., 1905. Net earnings for three months ended Mar. 31, $67,638.61, against $42,508.91 for same period, 1905.

Rutland Rd.—The report for the year ended Dec. 31, 1905, is the 39th annual report of the company, but is the first issued since the line passed under the direct control of the New York Central and Hudson River Rd. Co. The road is made up of a number of short local lines, originally independent, which were consolidated with the idea of making a through route. "The road," says the Railroad Gazette, "can be used both as part of a New York-Montreal line and as part of a Boston-Chicago or Boston-Montreal line. From a connection with the Harlem division of the New York Central at Chatham, it runs across the International boundary line south of Montreal, which city its passenger trains reach by trackage rights. From Boston, over the Boston and Maine, to Bellows Falls, thence over the Rutland to Ogdensburg on the Upper St. Lawrence Rivers, and thence by the Rutland Transit Company, a lake line owned by the Rutland Railroad to Chicago, a Boston-Chicago line is made. The weakness of the road for through traffic is that neither of these routes is the natural, shortest or cheapest way." From 1870 to 1896 the line was leased to the Central Vermont Ry., and from 1896 to 1899 the Delaware and Hudson Rd. had control. Under Dr. W. S. Webb, who got control in 1899, a policy of expansion was entered upon, several other small roads being amalgamated and the Montreal connection, the Rutland and Noyan Ry., was constructed. The plans of the President were not realized, and the line passed under the control of the N.Y.C. and H.R.Rd. The company owns

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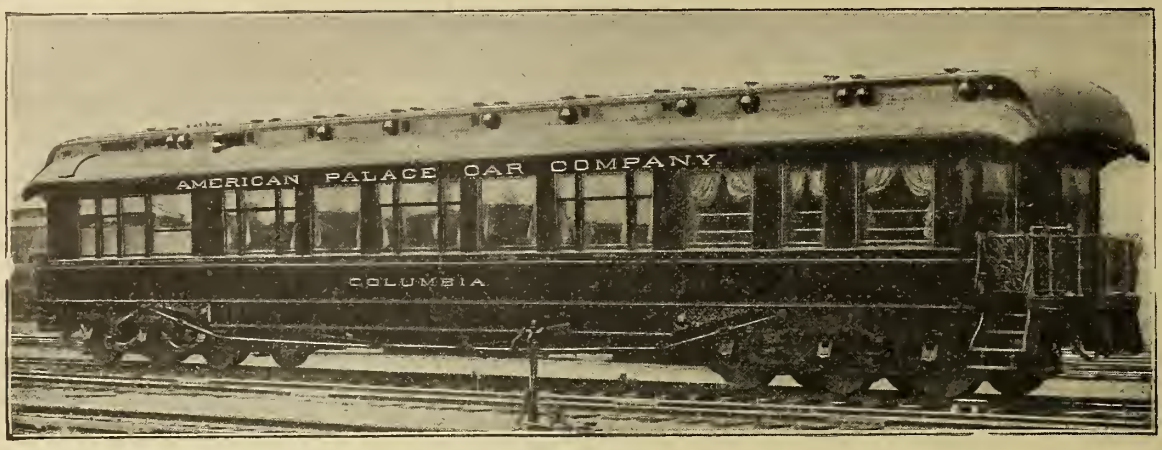

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415 miles, and has trackage rights over 53 miles additional for passenger trains only. The report shows:

	1905	1904
Freight earnings	$1,509,282	$1,441,601
Passenger earnings	879,201	841,003
Gross earnings	2,562,089	2,437,037
Maint. way and structures	378,887	318,288
Maint. of equipment	329,326	319,022
Conducting transportation	923,101	908,772
Operating expenses	1,715,603	1,635,319
Net earnings	846,486	801,717

After meeting first charges and an appropriation of $100,000 for equipment bonds, there was $190,847 available for dividends, out of which 1½%, absorbing $135,864, was paid, the first payment on the capital stock since 1903, when 1% was distributed.

Temiscouata Ry.—Receipts for April, $14,-896.35, against $14,034.56 for April, 1904.

Toronto, Hamilton and Buffalo Ry.—Earnings for April, $63,244.31, against $57,502.75 for April 1905.

Canadian Northern Ry. Earnings, etc.

Gross earnings, working expenses, net profits, increases or decreases over 1904-05, from July 1, 1905:

	Earnings.	Expenses.	Net Earnings.	Increase or Decrease.
July	$395,100	$ 252,600	$ 142,500	$ 51,400+
Aug.	357,900	246,200	111,700	12,200+
Sept.	378,500	268,300	110,200	14,000+
Oct.	557,100	298,900	258,200	113,600+
Nov.	566,800	341,700	225,100	68,700+
Dec.	437,800	295,600	142,200	7,100+
Jan.	359,900	260,600	99,300	10,800+
Feb.	301,400	217,900	83,500	23,300+
Mar.	441,600	324,200	117,400	46,800+
	$3,796,100	$2,506,000	$1,290,100	$347,900+

Approximate earnings for April, $544,800, against $282,900 for April, 1905.

C.P.R. Earnings, Expenses, etc.

Gross earnings, working expenses, net profits, increases or decreases over 1904, from July 1, 1905:—

	Earnings.	Expenses.	Net Profits.	Increase or Decrease.
J'ly	$4,629,174.95	$2,991,397.29	$1,449,652.14	$188,125.52+
Aug.	4 796,733.98	3,005,088.07	1,791,645.91	263,715.48+
Sept.	4,872,575.38	3,086,565.35	1,776,010.05	507,202.49+
Oct.	5,722,767.30	3,448,696.12	2,274,071.18	707,957.27+
Nov.	5,741,543.12	3,380,232.13	2,316,310.99	691,736.25+
Dec.	5,619,182.83	3,272,599.52	2,346,583.31	685,914.48+
Jan.	4,422,690.96	3,155,456.94	1,267,234.02	844,565 55+
Feb.	4,224,451.76	3,018,707.98	1,205,743.78	903,572.46+
Mar.	5,093,286.24	3,248,621.74	1,844,664.50	661,837,46+
	$45,122,406.52	$28,617,365.12	$16,305,041.40	$5,452,626.96+

Approximate earnings for April, $5,462,000, against $4,196,000 for April 1905.

DULUTH, SOUTH SHORE AND ATLANTIC RY.—Gross earnings for Mar., $252,308.82; net earnings $77,522.40, against $238,391.63 gross and $91,406.02 net for Mar., 1905. Net earnings for nine months ended Mar. 31, $757,466.22 against $666,209.41 for same period 1904-05. Approximate earnings for April, $240,045 against $227,-949 for April, 1905.

MINERAL RANGE RY.—Approximate earnings for April, $54,514, against $44,431 for April, 1905.

MINNEAPOLIS, ST. PAUL AND SAULT STE. MARIE RY.—Gross earnings for Mar., $903,677.25; net earnings, $389,229.02, against $771,545.84 gross and $390,-809.95 net for Mar., 1905. Net earnings for nine months ended Mar. 31, $4,563,805.61 against $3,341,637.39 for same period 1904-05. Approximate earnings for April, $946,323 against $626,664 for April, 1905.

Grand Trunk Ry. Earnings, Expenses, etc.

The following statement of earnings, supplied from the Montreal office, includes the G.T. of Canada, Canada Atlantic Ry., the G.T. Western, and the Detroit, Grand Haven & Milwaukee Rys.

	1906.	1905.	Increase.	Decrease.
Jan	$2.896.439	$2,674,242	$222,197	....
Feb	2,602.274	2,268,252	334,022	....
Mar	3,268,011	3,047,060	220,951	....
April	3,180,305	2,990,209	190,096	...
	$11,947,029	$10,979,763	$967,266	....

The following figures relate to the individual lines, and are made out in sterling:

GRAND TRUNK RY. CO.

Revenue for Mar.:

	1906.	1905.	Increase.	Decrease.
Gross receipts	£509,500	£464,300	£45.200	....
Working expenses	363,200	324,800	38,400	....
Net profit	£146,300	£139,500	£6,800	....

Aggregate from Jan. 1 to Mar. 31:

	1906.	1905.	Increase.	Decrease.
Gross receipts	£1,371,300	£1,226,900	£144,400	....
Working exp'ses	1,044,900	945,500	99,400	....
Net profit	£326,400	£281,400	£45,000	..

CANADA ATLANTIC RY. CO.

Revenue for Mar.:

	1906.	1905.	Increase.	Decrease.
Gross receipts	£32,300	£28,000	£ 4,300	....
Working expenses	24,800	20,400	4,400	....
Net profits	£ 7,500	£ 7,600	....	£ 100

Aggregate from Jan. 1 to Mar. 31:

	1906.	1905.	Increase.	Decrease.
Gross receipts	£80,800	£73,700	£ 7,100	....
Working expenses	70,400	63,300	7,100	....
Net profit	£10,400	£10,400	....	....

GRAND TRUNK WESTERN RY. CO.

Revenue for Mar.:

	1906.	1905.	Increase.	Decrease.
Gross receipts	£98,900	£106,000	....	£ 7,100
Working expenses	79,700	85,000	....	£ 5,300
Net profit	£19,200	£21,000	....	£ 1,800

Aggregate from Jan. 1 to Mar. 31:

	1905.	1904.	Increase.	Decrease.
Gross receipts	£267,100	£268,200	....	£ 1,100
Working expenses	231,900	232,800	....	900
Net profit	£ 35,200	£ 35,400	....	£ 200

DETROIT, GRAND HAVEN & MILWAUKEE RY. CO.

Revenue for Mar.:

	1906.	1905.	Increase.	Decrease.
Gross receipts	£ 30,700	£ 27,700	£ 3,000	...
Working expenses	25,200	23,000	2,200	....
Net profit	£ 5,500	£ 4,700	£ 800	....

Aggregate from Jan. 1 to Mar. 31:

	1906.	1905.	Increase.	Decrease.
Gross Receipts	£81,800	£72,500	£9,300	....
Working Expenses	66,300	58,200	8,100	....
	£15,500	£14,300	£1,200	....

MEMO RE-MICHIGAN TAXATION.

The U.S. Supreme Court having upheld on appeal the validity of the Michigan State Law, increasing the taxation payable by the railways in that State, the amount of additional taxes and interest on the arrears payable by the G.T.R. lines in that state to Dec. 31, 1905, is about £108,000 which the board proposes to charge over a period of two years in equal monthly proportions. The amount affecting the G. T.R. accounts will be about £2,630 per month, and the amount affecting the G. T. Western accounts about £1,900 per month. In the March statement the amounts for Jan. and Feb. are included, in addition to the proportion for the month of March.

TRAFFIC RECEIPTS OF THE SYSTEM.

Aggregate from Jan. 1 to April 30:

	1906.	1905.	Increase.	Decrease.
Grand Trunk	£1,891,768	£1,693.055	£198,713	...
Canada Atlantic	108.351	102,401	5,950	
G. T. Western	346,786	367,388	....	£20,602
D. G. H. & M.	107,966	93,274	14,692	....
Total	£2,454,871	£2,256,118	£198,753	....

Quebec Central Railway Meeting.

The following report for the year ended Dec. 31, 1905, was presented at the annual meeting in London, Eng., May 2:

1904.		1905.
$778,969	Gross earnings	$789,205
540,373	Working expenses	528,380
$238,596	Net earnings	$260,825
336	Interest on balances	476
$238,932	Net revenue	$261,301

This statement shows an increase in gross earnings of $10,236, a decrease in working expenses of $11,993, and an increase in net earnings of $22,229. The net revenue was $261,301. The addition of $10,679 brought forward from 1904 made the available balance $271,980. After providing $90,609 for the year's interest paid and accrued on the outstanding prior lien bonds and 4% debenture stock, $15,000 was charged against net revenue for alterations, additions, and improvements to stations, buildings, etc. There then remained a balance of $166,371, out of which was paid the interest on the 3% second debenture stock, amounting to $49,348, and interest at the rate of 5½% for the year on the 7% income bonds. These two payments absorbed $139,818, and left a surplus of $26,553, of which $15,000 has been appropriated for betterments to bridges, and $11,553 carried forward. At Dec. 31, 1905, £283,137 of the 4% debenture stock had been issued. Of this £199,500 had been used in retiring a like amount of prior lien bonds, and £83,637 had been sold to provide funds for a portion of the requisite additional capital expenditure authorized by the act of 1899. There remained £150,-500 prior lien bonds outstanding on Dec. 31, 1905.

The directors record with deep regret the loss of their old and valued colleague and friend, S. G. Sheppard, who died Oct. 3, 1905. It was in a great measure owing to his interest and support in the early days when the present board took office that the company is in the sound position it occupies to-day. The directors announce the retirement of F. Grundy from the position of General Manager, which took effect on Dec. 31. He was appointed on Jan. 1, 1889, and the invaluable services he has rendered to the company are a matter of common knowledge, and can be best appreciated by a comparison of the annual report for 1890 with that for the year just concluded. The directors will still have the benefit of Mr. Grundy's advice and sound judgment, as he retains the office of Vice-President and his seat on the Board. J. H. Walsh, whose name will be familiar as General Freight and Passenger Agent, which office he has so ably filled for many years, has been appointed General Manager in Mr. Grundy's stead, and E. O. Grundy has been appointed General Freight and Passenger Agent as successor to Mr. Walsh By the constitution of the company, the entire board, other than the Provincial Government director, has to be elected annually, and the present directors offer themselves for re-election.

The statistics showed 211.86 miles of line owned, and trackage rights on the Intercolonial Ry. between Harlaka Jct. and Levis, Que., 5 miles. The rolling stock consisted of 19 locomotives, 14 passenger cars, 614 flat, box and stock cars, and 28 miscellaneous and working cars. The total train mileage was 651,320, against 668,046 in 1904; 249,898 passengers and 485,988 tons of freight were carried against 228,951 passengers and 501,280 tons in 1904.

President E. Dent, in moving the adoption of the report, referred to the death of S. G. Sheppard, and analyzed the figures contained in the report somewhat in detail. There had been a healthy increase in the passenger traffic, but only a small increase in the freight traffic, owing to the fact that 1904 was an abnormal year owing to the dry autumn of 1903, which prevented the floating down the rivers of large quantities of lumber for handling in that year. This decrease in the lumber had been partly made up by a large increase of traffic in other goods, and also the average earnings per ton had slightly increased. Of course, last year they were fortunate in having very few accidents of any kind, and only a few washouts, to which Canada's railways were particularly liable. It would be remembered that in 1904 the company built a new iron bridge over the River Chaudiere. Last year they completed a steel bridge at Sherbrooke, and the General Manager had now told them that all the main bridges were composed of steel. He might add that all these bridges were now paid for except $6,000, which was carried over to the present year. He next referred to the proposed extensions, the changes in management, and concluded by stating that the gross earnings for the current year to the third week in April had amounted to $246,750, an increase of $47,648 over the last year. The net earn-

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ings for the three months ending March 31 were $67,638, or an increase of $25,000. They could hardly expect that this rate of increase would continue, but it had been partly due to the mild winter. There had been enough snow to move all the lumber down, but not enough to prevent traffic upon the lines, so that they had been working in the winter at the same expenditure as in the summer.

F. Grundy, in seconding, stated that the line was doing well, and the shareholders' property in Canada was a very solid and good little concern. Regarding the current year's prospects he thought the shareholders would have every reason to be satisfied when the report was presented. Referring to the proposed extensions of the line he said: "With regard to the branch that you are about to build from St. Francis to the Famine River, I think it will very likely be completed this year—it ought to be; and I can assure you, to the very best of my knowledge, the traffic upon it will begin to pay from the very first day that we can operate it. I have referred to this extension at former meetings, but it has not been an opportune time to approach the Government until this year, but now I think the business will be satisfactorily concluded. With regard to the further extension of this portion of your line, that will be a matter for consideration hereafter. There is no hurry about it, and under the act you will see that we have ten years in which to complete as much or as little as we may think fit; but I may say that if the continuation of the branch is carried up so as to join the Temiscouata Ry., it will go through a very excellent country of virgin timber. I do not think anything has been removed except, perhaps, some of the pine, and the extension, if built, or when built, will no doubt be a very great addition to the property you already own."

The report was adopted and the directors re-elected, viz., E. Dent, F. Grundy, A. Bremner, T. Lindley, F. H. Norman. The director appointed by the Quebec Government is L. A. Carrier, M.P.

Subsequently separate meetings of the 4% debenture stock holders, and of the 3% debenture stockholders were held, at each of which a resolution was passed authorizing the company to increase the issue of debenture stock or bonds, or both, authorized by 62 Vict., chap. 74, provided that the total amount shall not exceed $15,000 a mile of the present line, and of the branches or extensions now or hereafter to be constructed, and that the provisions of the act named and the amending acts apply to such additional issue with the exception of the limitation of annual interest to be paid.

Lake Superior Branch Engineering Association.—A unique meeting was held at Fort William, Ont., May 4, when the Grand Trunk Pacific Ry. Co.'s engineering staff of the whole of the Lake Superior branch was gathered together with the Division Engineer in the chair, the Assistant Chief Engineer, H. A. Woods, being also present and speaking. It was decided to organize as the Lake Superior Branch Engineering Association, the membership to comprise those directly engaged upon the location and construction of the branch named. Meetings will be held bi-monthly, when papers on engineering subjects will be read and discussed, and it is believed that the social reunion of the engineers will be conducive to unity of opinion and purpose. G. A. Knowlton, Division Engineer, was elected Honorary Chairman; E. W. Cameron, Secretary, and C. H. E. Rounthwaite, Treasurer. The business session was followed by a dinner.

TRADE AND SUPPLY NOTES.

The matter which appears under this heading is compiled, in most cases, from information supplied by the manufacturers of, or dealers in, the articles referred to, and in publishing the same we accept no responsibility. At the same time we wish our readers to distinctly understand that we are not paid for the publication of any of this matter, and that we will not consider any proposition to insert reading matter in our columns for pay or its equivalent. Advertising contracts will not be taken with any condition that accepting them will oblige us to publish reading notices. In other words, our reading columns are not for sale, either to advertisers or others.

The Canadian Westinghouse Co. has issued circular no. 1128 dealing with small power motors.

The Canadian Fairbanks Co., Montreal, has issued a map of the townships in the vicinity of Cobalt, Ont., which will be sent free on application to any of our readers.

The officers and directors of the Canadian White Co. for the current year are: Chairman, J. G. White; directors: W. G. Ross, Sir H. M. Allan, P. G. Gossler, Sir H. M. Pellatt, E. R. Wood, S. H. Alfred.

The Canadian Westinghouse Co. offered to its shareholders of record May 21, $1,000,000 of the $2,500,000 of new stock authorized to be issued at the last annual meeting in the proportion of two shares of new stock to each five of old.

The Robb Engineering Co., Amherst, N.S., has received an order through the Canadian Westinghouse Co.'s Vancouver, B.C., office for two 20 h.p. engines to be used for lighting purposes on the C.P.R. steamer "Princess Royal," now building.

The Dominion Engineering and Construction Co., Ltd., Montreal, has taken a contract from the Canadian Copper Co. for the erection of extensive buildings at Copper Cliff, Ont., in connection with the opening of new mines. This contract is on the cost-plus-a-fixed sum principle.

The Dominion Wire Rope Co., Ltd., held its annual meeting of shareholders recently at its head office, Imperial Bank Building, Montreal, when the following officers were elected for the current year: F. W. Fairman, President; F. H. Hopkins, Vice-President and Managing Director; J. J. Rosevear, Secretary Treasurer.

The Canadian Iron and Foundry Co., Ltd., has been incorporated under the Dominion Companies' Act, with a capital of $2,000,000 and offices at Montreal, to buy and sell steel, iron and its products, to own and operate mines, furnaces, etc., to manufacture car wheels and railway supplies generally, and particularly to carry on the business of the Canadian Iron and Foundry Co. The provisional directors are: T. J. and G. P. Drummond, T. Brosseau, K.C.; F. G. O'Grady, R. J. Mercur, of Montreal,; J. A. Kilpatrick, St. Thomas, Ont.

The American Palace Car Co. reports that it has arranged with the Ann Arbor Railroad to place the demonstration car Columbia on that line, June 15, for one month, to make both day and night runs between Toledo and Frankfort, pending the delivery of the cars contracted for operation on this line, now being constructed. It is also announced that the first delivery of cars for the Mackenzie & Mann Ry. system, now under construction, will be made on Sept. 1, and further, that the company has under negotiation contracts with railways operating in China and Japan, which will represent a cash investment of between $500,000 and $1,000,000, the cars to be constructed in the United States, under the company's disappearing berth system.

The American Locomotive Co. has issued a pamphlet describing Pacific type passenger locomotives built for various railways. It opens with a description of the Pacific type and an outline of the special advantages claimed for it for very heavy and fast passenger service. These are very briefly stated and are followed by a description of two forms of trailing trucks which have been used with great success on this type of locomotive. The description is followed by two pages of tables containing in condensed form the leading dimensions of the locomotives illustrated in the pamphlet, the tables being arranged in the order of the total weight of the locomotives. By use of side elevation and sectional drawings a typical Pacific type locomotive is illustrated and engravings of outside and inside bearing trailing trucks are included. The remainder of the pamphlet is devoted to photographic reproductions of locomotives, the opposite pages containing tabular information concerning each design. The locomotives are placed in the order of their weights.

The Canadian Westinghouse Co. has received several important contracts recently, among which the more interesting are as follows: One for supplying the Provincial Light, Heat and Power Co. with apparatus to be used in the development of another large water power plant near Montreal. The initial installation will consist of three 3,750 k.w., revolving field, alternating current, water wheel driven generators of 4,000 volts, three phase, 7,200 alternations; also twelve 2,500 k.w., 44,000 volts, oil insulated, water cooled transformers. This new power station will be used for supplying additional power to the Montreal Light, Heat and Power Co. at Montreal. The step-up transformers will be wound for 4,000 to 44,000 volts, and the lowering from 40,000 to 12,500 volts. The transmission line is about 40 miles long. Another is for the Northern Electric Mfg. Company, of Montreal, for a 300 k.w., Westinghouse-Parsons turbo-generator unit, to be installed alongside of one of the same capacity now in service. The generator is a 220 volt, three phase, 7,200 alternation machine, operating at 3,600 r. p. m., and will be of the latest enclosed type, while the turbine will operate at 150 lbs. steam pressure with 100 degrees superheat. The Yukon Consolidated Co. has placed a contract for the following: Three 100 h.p. 3-phase, 60 cycle, 400 volt, type F motors; three 15 h.p., 3-phase, 60 cycle, 400 volt, type F. motors; three 50 h.p., 850 r.p.m., 3-phase, 60 cycles, 400 volt, constant speed induction motors; three 30 h.p. motors; three 20 h.p., 1,120 r.p.m. motors; three 15 h.p., 850 r.p.m. motors; three 7½ h.p., 1,700 r.p.m. motors; nine 75 k.w., oil insulated, self-cooling transformers; two 625 k.w., 3-phase, 60 cycle, 2,200 volts, 415 r.p.m., A.C. generators, and two 17 k.w., type S exciters for same; one 4 panel switch board for controlling the above; four 250 k.w., oil insulated, oil cooled transformers, and four 200 k.w. transformers, same type.

The Winnipeg Jobbers' Union has decided to form a transportation bureau with a permanent Manager and Secretary. The duties of the bureau will be to take up and push all claims and complaints by members of the bureau against the railways.

The C.P.R. placed a donation of $10,000 at the disposal of the Red Cross Society for the relief of the sufferers from the earthquake and fire at San Francisco, Cal., in addition to granting the free use of the str. Amur to carry supplies from Vancouver, B.C.

Following are the officers and directors of Ross & Harris Co. (Ltd.) for the current year: President, J. Ross; Vice-President, J. W. Harris; Secretary-Treasurer, W. B. Powell; other directors: J. A. McRae, Niagara Falls, Ont.; W. H. Chandler, Toronto. The three first named reside at Montreal.

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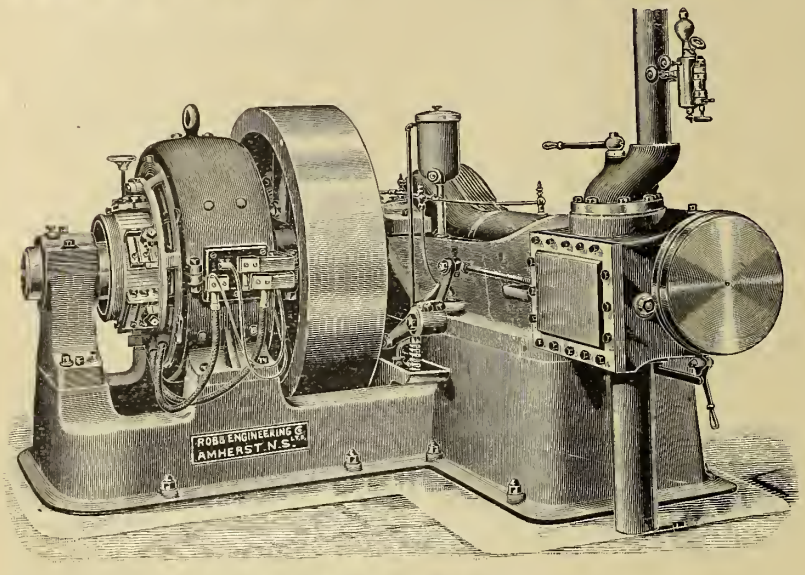

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TRANSPORTATION APPOINTMENTS.

Canadian Northern Ry.—W. E. Dunn, formerly in the C.N.R. service at Winnipeg, and latterly in another company's service at St. Paul, Minn., has been appointed city ticket agent, C.N. Ry., at Edmonton, Alta.

Canadian Pacific Ry.—A. C. Morton, heretofore chief clerk in the General Passenger Department, Halifax, N.S., has been appointed ticket clerk on the SS. Empress of Britain. His duties are to attend to the ticketing of passengers holding orders for rail tickets and to adjust anything that may be wrong in connection with rail transportation; to give full information to passengers on the ship with regard to routes, rates, points of interest, etc. Also to arrange for sleeping car accommodation, and to be, generally speaking, a bureau of information concerning railway travel.

H. F. Matthews, heretofore Sleeping and Dining Car Agent, Calgary, Alta., has been appointed Assistant Superintendent Sleeping, Dining and Parlor Cars and News Service. Office, Montreal.

E. Myers has been appointed acting roadmaster, Smith's Falls, section, Ontario Division, for some three or four months, while Roadmaster J. Drinkwater will be engaged in connection with the laying of the second track between the Anne de Bellevue and Vaudreuil.

S. Wertheim has been appointed Sleeping and Dining Car Agent, Toronto, succeeding H. R. Bain, transferred to Calgary.

P. E. Barry, heretofore Roadmaster, Winnipeg terminals, has been appointed General Yardmaster, Winnipeg terminals, succeeding H. J. Hunt, resigned.

W. Cooper has been appointed Roadmaster Winnipeg terminals, succeeding P. E. Barry, promoted.

W. E. Woodhouse, heretofore road foreman of engines, 4th district, Central Division, has been appointed District Master Mechanic, same district, Moose Jaw, Sask. The position of road foreman of locomotives has been abolished.

H. R. Bain, heretofore Sleeping and Dining Car Agent, Toronto, has been appointed Sleeping and Dining Car Agent at Calgary, Alta., succeeding H. F. Matthews, promoted.

J. E. Proctor, heretofore city ticket agent at Nelson, B.C., has been appointed Travelling Passenger Agent, with headquarters at Calgary, Alta., being succeeded by J. A. M. Faulds.

J. W. Draper has been appointed General Agent of the Freight Department at Seattle, Wash., succeeding H. W. Roberts.

Delaware and Hudson Rd.—A. E. A. Deguire has been appointed soliciting passenger agent at Montreal.

Department of Railways and Canals.—J. Murphy, heretofore with the Ottawa Electric Co., has been appointed Superintending Electrician to the Department and to the Board of Railway Commissioners.

Grand Trunk Pacific Ry.—W. LeB. Ross, formerly cashier Canada Atlantic Ry., and Canada Atlantic Transit Co., has been appointed local Treasurer at Winnipeg, Man.

M. C. Sturtevant, heretofore Car Service Agent, G.T.R., has been appointed General Assistant G.T. Pacific Ry. at Winnipeg.

H. B. R. Craig, heretofore City Engineer, Kingston, Ont., has been appointed to the company's engineering staff west of Fort William, Ont.

Grand Trunk Ry.—F. Price, heretofore Master of Transportation at London, Ont., has been appointed Superintendent of Car Service, with headquarters at Montreal. He assumes the duties of, and will receive all the reports heretofore made to the Car Service Agent, which position has been abolished, M. C. Sturtevant, who held that position, having been appointed to a position on the G. T. Pacific Ry.

S. Hewitt has been appointed joint travelling agent G.T.R. and Northern Navigation Co. for the territory from Montreal to Detroit and St. Clair Rivers. His headquarters will be in the G.T.R. District Passenger Agent's office, Union Station, Toronto.

The following agents have been appointed: Beaconsfield, Que., V. Daoust; Anson, Ont., W. Burns; Trout Creek, Ont., A. S. Quinlan; Powassan, Ont., T. Barlow; Toronto, Ont., J. J. Beck, Supt. Union Stn.; Toronto Exchange, Ont., J. E. Cather (Pass.); Paisley, Ont., W. F. Briggs; Elmwood, Ont., F. Pope; Dobbington, Ont., J. S. Marshall (Pass.); Johnson's, Que., Jas. Robertson; Kinburn, Ont., A. E. Campbell; Brule Lake, Ont., L. A. Coulombe. Outside Ticket Agents: Ottawa, Ont., P. M. Buttler; Renfrew, Ont., Wm. A. Cameron.

S. Ennes, heretofore Trainmaster districts 25, 27, 28 and 29, Western Division, Durand, Mich., has been appointed Master of Transportation, London, Ont., succeeding F. Price, promoted.

J. Ehrke, heretofore Trainmaster district 26, Western Division, Battle Creek, Mich., has been appointed Trainmaster districts 25, 27, 28 and 29, Durand, Mich., succeeding S. Ennes, promoted. The office of Trainmaster, district 26, has been abolished, and all reports heretofore sent to the Trainmaster at Battle Creek, are to be sent to the Assistent Superintendent there.

W. O. Johnson, G.T.R. agent at San Francisco, Cal., has opened a temporary office at 968 Broadway, Oakland, Cal., the building in which the offices at San Francisco were situated having been destroyed by the earthquake and fire.

Lehigh Valley Rd.—J. S. Wood, heretofore Travelling Freight Agent at Buffalo, N.Y., has been appointed Assistant General Freight Agent in New York city, and is succeeded at Buffallo by H. C. Hamilton.

Michigan Central Rd.—L. B. Thomson has been appointed general yardmaster at Bridgeburg, Ont.

Pere Marquette Rd.—F. W. Goldie, contracting freight agent at Buffalo, N.Y., has been appointed Travelling Freight Agent for Illinois, with headquarters at Chicago. He is succeeded at Buffalo by E. T. Reynolds, chief clerk to the General Agent at that point. A. E. Patriarche has been appointed chief clerk in succession to E. T. Reynolds.

Northern Pacific Rd.—M. O. Barnard has been appointed General Agent Freight Department at Buffalo, N.Y., vice E. E. Delaney, deceased.

W. P. Hinton, General Agent G.T.R. Passenger Department, writing May 16, in reference to the press reports that he was removing from Ottawa to Montreal immediately, said: "You may be sure that if I change my address I will let you know, as I do not wish to run the risk of missing even one copy of your paper."

The Board of Railway Commissioners held sittings at Paris, Ont., May 1 and 2; Strathroy, Ont., May 3; Chatham, Ont., May 4; Windsor, Ont., May 5; Hamilton, Ont., May 8; and for several days subsequently in Toronto. The Commissioners propose to hold sittings in the Maritime provinces before thew estern trip is arranged.

Under the provisions of the Government Railway Act, an order-in-council has been passed directing that the regulations of the G.T.R. adopted Feb. 19, 1906, governing the transportation of gunpowder and other explosives be adopted for the I.C.R. and the P.E.I. Ry., subject to such verbal changes as may be necessary to adapt them to the Government railways.

Great Northern Ry. (U.S.) in Canada.

The daily newspapers in Canada, and a number in the United States have, for some time past, been discussing the extensive railway building and chartering in Western Canada—and more particularly along the International boundary—and have been constructing on paper, not only a large number of branch lines destined to divert the produce of the west from Canadian to U.S. lines, but another transcontinental line in Canada, for the Great Northern Ry. (U.S.). Much of this activity of construction and chartering of new lines is said to be due to the competition of the C.P.R. and the G.N. Ry., and to be a measure of retaliation by the G.N. Ry. for the recent extension of the Minneapolis, St. Paul and Sault Ste. Marie Ry.—a C.P.R. controlled line—in the Dakotas, and the persistent opposition of the C.P.R. to the construction of the Vancouver, Victoria and Eastern Ry.—a G.N. Ry. subsidiary—in British Columbia.

The Great Northern Ry., which has its eastern terminii at St. Paul and Duluth, Minn., extends to the Pacific coast at Spokane, Wash., and, including branches, has a length of about 6,000 miles. The main line for the greater portion of the distance is almost parallel with the International boundary, but from 50 to 100 miles south, and is connected at Emerson and Gretna, Man., with Canadian lines. There are also branch lines running northerly, terminating at Rosseau, Minn.; Walhalla, Hannah, Sarles, north of Starkweather, St. John, Dunseith, Antler, Maxbass and Sherwood, N.D. The Great Falls and Canada Ry., extending from Great Falls to the International boundary at Sweet Grass, Alta., was acquired from the Alberta Ry. and Coal Co., in 1902, and was made a standard gauge line the same year, as was also the A. Ry. and Coal Co.'s line from Sweet Grass to Lethbridge, Alta., thus giving another connection at the border. In B.C., however, the G.N. Ry., through subsidiary companies, has a large interest in the following mileages:

	Miles.
CROW'S NEST SOUTHERN RY.—Swinton to International boundary, where it connects with the G.N.R. system	43.80
BEDLINGTON AND NELSON RY.—From Kuskonook to International boundary, where connection is made with G.N.R. line to Bonnar's Ferry, Wash	15.30
KASLO AND SLOCAN RY.—This is connected by the International Navigation and Trading Co.'s steamers on a 45 mile run with the B. and N. Ry. at Kuskonook	31.80
NELSON AND FORT SHEPHERD RY.—From Five Mile Point to International boundary	55.42
RED MOUNTAIN RY.—From Rossland to International boundary	9.59
VANCOUVER, VICTORIA AND EASTERN RY.—Laurier to Grand Forks, Grand Forks Jct. to Danville, Grand Forks to Phœnix	50.10
These three lines are being operated by the Spokane Falls and Northern Ry., a G.N. Ry. subsidiary.	
NEW WESTMINSTER SOUTHERN RY.—South Westminster to Douglas, on International boundary, where connection is made with G. N.R. line to Seattle, Wash	24.10
VANCOUVER, WESTMINSTER AND YUKON RY.—New Westminster to Vancouver	14.00
VICTORIA TERMINAL RY. AND FERRY CO.—Cloverdale to Port Guichon, and 1.14 miles in Victoria	18.40
VICTORIA AND SYDNEY RY.	16.26
	278.77

These four lines give the company a direct line between Seattle and Victoria, through New Westminster, and over the leased Fraser River Bridge to Vancouver.

The company at the present time makes connection with Canadian lines at three points of the International boundary, and through its own subsidiary lines runs its trains across the boundary at six other points, operating in connection therewith 278.77 miles of track, and 45 miles of steamer routes. It is engaged in constructing, as the Van-

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couver, Victoria and Eastern Ry., in B.C., and as the Washington and Great Falls Ry. in Washington, a line between Grand Forks and Vancouver. It was over this line that the great fight with the C.P.R. as owners of the British Columbia and Southern Ry. took place in the House of Commons in 1905. In the end Parliament granted permission to the V., V. and E. Ry., at such points as the contour of the country made it necessary, to connect its lines with those of a U.S. company, and directed that the plans be subject to the approval of the Board of Railway Commissioners. The other piece of construction work in which the company is engaged in Canada, is under the charter of the Brandon, Saskatchewan and Hudson's Bay Ry., the section under construction extending from Brandon southerly to the International boundary, with the object of making a connection with the branch line from Church's Ferry, now terminating at St. John, N.D. The surveys for this line have also been prosecuted from Brandon northerly

The press reports referred to credit the G.N. Ry. with having completed surveys for connecting its lines in British Columbia with Lethbridge, Alta., and constructing a new line thence to Winnipeg, running its line from Brandon to Hudson Bay, and finally extending its line from Winnipeg easterly to an unnamed port on the Atlantic coast. One paper, however, stated that it was intended to run the line from Winnipeg north of any existing or projected line and make the Atlantic port on Hamilton Inlet. In regard to these projects, L. W. Hill, Vice-President G.N. Ry., is reported to have said in an interview at St. Paul, recently, that the new transcontinental line would be entirely independent of the Canadian Northern Ry., and that it would probably be completed some time before the G.T. Pacific Ry. is built through to the coast. "Our line," he added, "includes only 800 or 900 miles that are still to be constructed west of Winnipeg. We have already secured our own terminals in Winnipeg, and will soon construct an independent line into the city instead of having to run over the Canadian Northern Ry. from Emerson under lease." A letter has been addressed to the Board of Trade by J. J. Hill, President G.N. Ry., in which he promised to visit Winnipeg as soon as possible after May 1, and gave some details of the company's plans. In regard to this letter, A. Strang, President, recently said: "The G.N.Ry. will come into Winnipeg from the east and will continue on through western Canada to the Pacific coast. The Great Northern project," Mr. Hill says, "will begin at a connection from Montreal to Boston. From Montreal west, the line will parallel the Canadian Pacific." A recent despatch from St. Paul, Minn., quotes a leading contractor as saying: "That within 60 days more than 4,000 miles of J. J. Hill's Canadian road would be under contract. While the contract for the road west of Winnipeg," he said, "which we have undertaken, calls for the building of the line to the Pacific coast, there will be no less than 12 branch lines running south into the gold fields, the oil fields and the coal deposits. Of these seven lines will run into northern North Dakota, Montana, Idaho and Washington, and connect with the main line of the Great Northern. These branch lines will touch the great coal fields and the mining centres on the southern Canadian border."

Be these reports true, even in part, there is no doubt that the Great Northern Ry. intends to become an active factor in the railway field in the Canadian Northwest. At present it has surveyors out all over the country; it has purchased land for right of way and terminals in Winnipeg; it is reported to have secured charters in the Dominion Parliament and in the Manitoba Legislature for a large number of lines from the original local promoters; and is interested in a number of applications for charters to construct railways now before the Legislatures of Saskatchewan and Alberta. The construction of the lines from the International boundary into Manitoba appears to be the immediate object of the company, and of these, U.S. papers report that a line from Emerson, Man., to Winnipeg has been surveyed, and that construction is in progress on the line to connect St. John, N.D., with the Brandon, Saskatchewan and Hudson's Bay Ry., now under construction southerly; and on a line from the International boundary at Neche, N.D., to Portage la Prairie, Man. In connection with the line into Winnipeg, the company is said to have secured the following properties: right of way between Ross and Pacific Avenues from Princess to Neva streets; right of way across Elgin, William and Notre Dame avenues, from Ross Avenue to block 45, St. James; right of way west of the city to the Assiniboine River, through block 45, St. James, property for yards, shops and terminals. The estimated cost of the station, offices, shops, freight sheds and yards is put at $500,000. Negotiations for land for terminals are in progress at Regina and other points in Manitoba and Saskatchewan.

Reviewing the field of railway construction in Canada, the Railway Age, recently said: "Recently the press has indicated with much positiveness the new transcontinental line which it is declared Mr. Hill has begun to build between Vancouver and Winnipeg, with connections planned as far as the Atlantic. This theory hardly seems tenable. . . What Mr. Hill doubtless intends to do is to continue the plan of pushing branches from his main line northward into Canada to tap the three trunk lines, and to extend beyond them as the development seems to warrant."

J. J. HILL'S VISIT TO WINNIPEG.

J. J. Hill visited Winnipeg May 15, and remained there until May 18. He was entertained at luncheon by the Canadian Club, at which he made a speech on general transportation topics, and deprecating the giving of bonuses. Subsequently he met a delegation from the Board of Trade, and from various parts of the province, and, in reply to the addresses, made a lengthened speech in which he reviewed the development of the west during the fifty years that had passed since he left Canada, and referred to the opening up of the river route into Manitoba, as well as to the development of railways in which he was interested in conjunction with Sir Donald Smith, now Lord Strathcona. Referring to the railway projects which his company had undertaken in Canada, he said: "We want a good road with low grades. Transportation is nothing but overcoming the laws of gravitation. The nearer the level the road is the easier to run our trains.

"We must help you to get your stuff to market and get it where you can sell it for a price that will make you happy, otherwise you would not continue in business and our investment would not be a good one.

"I hope when we come here we will find our friends east of here ready to carry anything to or from our lines. If they do not, we will try and get along without them. We have no present desire to extend east of Winnipeg. There will always be a large trade with the country south of you."

In an interview subsequently, he said: "Our line, the Great Northern Railway, will be built from the Pacific Ocean to Winnipeg as soon as both the Canadian transcontinental lines, the C.P.R. and the G.T. Pacific Ry., are ready to compete for our freight. From the determination expressed and the work already in progress on the G.T. Pacific you can estimate how long that will be. We will be in a position to forward our freight over the first trains run eastward by the G.T. Pacific. The possibilities of the Canadian west are almost without limit, and as the country makes the city, Winnipeg must be a great city. There will be as great a population west of the Red River in Canada as in all the rest of the Dominion within a comparatively short time. Our line in the far west from Vancouver will be through the Rocky Mountains to the prairies in one year from this fall. Now that there is no doubt about other railways to the east to carry freight from the west we bring here, work on our line will be proceeded with vigorously. There will be no occasion for more lines north of Lake Superior."

On subsequent days Mr. Hill was met by W. Mackenzie, President Canadian Northern Ry., and F. W. Morse, Vice-President and General Manager G.T. Pacific Ry., for the purpose of discussing the probabilities of arranging joint terminals in the city.

Chicago Eastbound Passenger Rates.

W. E. Davis, Passenger Traffic Manager G.T.R., has given out the following statement:

"A meeting of presidents and executive officers of the lines easterly from Chicago convened at the Trunk Line Association's New York rooms, May 23, in pursuance of the fact that a meeting of these officials held at New York, May 11, had failed to come to a unanimous understanding. At the former meeting a committee, consisting of W. H. Newman, President New York Central lines; F. D. Underwood, President Erie Rd.; C. M. Hays, Second Vice-President and General Manager G.T.R., were appointed to confer, and if possible report to the adjourned meeting of May 23, a recommendation of some plan that might be satisfactory to the three contending interests. The result was a report from this committee practically agreeing to ask a disinterested person to referee such differences as might exist between the separate interests. This report was unanimously adopted, and the referee decided upon was Lucius Tuttle, President Boston and Maine Rd., who accepted the duties. A further result of the meeting was that the Michigan Central, Grand Trunk and Wabash Railways filed notice with the Interstate Commerce Commission that, effective June 1, the fares in existence from Chicago eastwardly prior to the misunderstanding would be restored.

"While in a sense this may be regarded as arbitration, I believe it is the opinion of most persons that it is a much fairer way than where each of the offending parties selects one advocate, and those two advocates decide upon a third individual, the result of which naturally follows that the third person is not selected directly by the interested parties, and that the burden of responsibility is equally divided between the shoulders of three individuals instead of one."

Brockville, Westport and Northwestern Ry.—It is understood that the United States interests which purchased the Brockville, Westport and Sault Ste. Marie Ry. when it was sold by order of the courts in 1902, and obtained a charter under the above title in 1903, have sold their stock to other U.S. interests who hold control. One press report states that the purchaser is E. B. Thomas, President Lehigh Valley Rd. Representatives of the purchasers were expected to go over the line at the end of May, and to arrange for the reorganization of the company. The Canadian directors:—. Bowie, W. H. Comstock, Brockville, Ont.; J. Cumming, Lyn, Ont., and W. C. Fredenburg, Westport, Ont. it is understood, will remain on the board.

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2—6 ton Cranes, Hand Power, 20 ft. High with 20 ft. Reach.
1—10 ton Power Crane, 20 ft. High with 21 ft. Reach. This Crane is equipped with Steam Engine and all necessary pipe connection.

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DUNDAS, ONTARIO

MAINLY ABOUT PEOPLE.

W. Whyte, 2nd Vice-President C.P.R., has been elected a director of the Imperial Bank.

The late John Bertram, of Dundas, Ont., who died there April 12, left an estate valued at $49,629.42.

W. Molson Macpherson and Mrs. Macpherson have returned to Quebec from a trip round the world.

H. Swinford, general agent Northern Pacific Rd., Winnipeg, Man., left there May 7, for a trip to Great Britain.

D. D. and Mrs. Mann, with their son and Miss Williams, returned to Toronto early in May from their European trip.

D. H. Purdon, at one time in the C.P.R. operating service at Winnipeg, died suddenly at De Laud, Florida, April 30.

Ross, the only son of Willard Kitchen, railway contractor, Fredericton, N. B., died from diphtheria there, May 1, aged 17.

The engagement is announced of Hugh A. Ryan, son of the late Jno. Ryan, contractor, Toronto, to Miss C. M. Clairmont, of Gravenhurst, Ont.

W. Sherring, who won the Marathon road race at Athens, Greece, has been employed as a brakesman on the G.T.R., running out of Hamilton.

C. L. Helliwell, father of Mrs. W. B. Bulling, wife of the Assistant Freight Traffic Manager C.P.R., died at the latter's residence in Toronto May 14.

Jas. Ross, of Montreal, has bought the Clyde-built steam yacht Sheelah, 750 tons, which he had previously chartered. The price is said to be $150,000.

W. Newman, formerly city engineer of Windsor, Ont., has moved to Regina, Sask., where he is engaged as engineer and contractor for railway and municipal works.

Mrs. A. Piers, wife of the Manager of the C.P.R. Steamship Lines, and Miss Piers, sailed on the Empress of Britain, May 19, from Quebec, for a visit to Great Britain.

Dr. J. J. Harty, Secretary-Treasurer Canadian Locomotive Co., Kingston, Ont., was married in Montreal, April 24, to Miss A. Fitzhugh, the actress and operatic singer.

Mrs. J. B. Morford, widow of the late Assistant to the General Manager, Michigan Central Rd., St. Thomas, Ont., accompanied by her daughter, is on a visit to Great Britain.

The marriage of R. B. Van Horne, son of the Chairman of the C.P.R. Board, to Miss E. Molson, daughter of Dr. W. Molson, is announced to take place in Montreal June 12.

E. H. Keating, formerly Manager of the Toronto Ry. Co., and D. J. R. Duncan have opened offices in the Home Life Building, Toronto, to carry on business as civil engineers.

C. Brydges, who was married in Winnipeg, April 25, to Miss I. Doyle, is a grandson of the late C. J. Brydges, at one time General Manager, G.T.R., and subsequently Land Commissioner, Hudson's Bay Co.

E. Beaudet, a director of the Quebec and Lake St. John Ry., was presented with an arm chair by the company's staff, upon the occasion of his recent marriage to Mrs. Hardy, widow of the late Elzear Hardy, Quebec.

J. S. Wood was presented with a sapphire and diamond scarf pin by the Buffalo, N.Y., Freight Committee April 30, on leaving to take the position of Assistant General Freight Agent, Lehigh Valley Rd., at New York city.

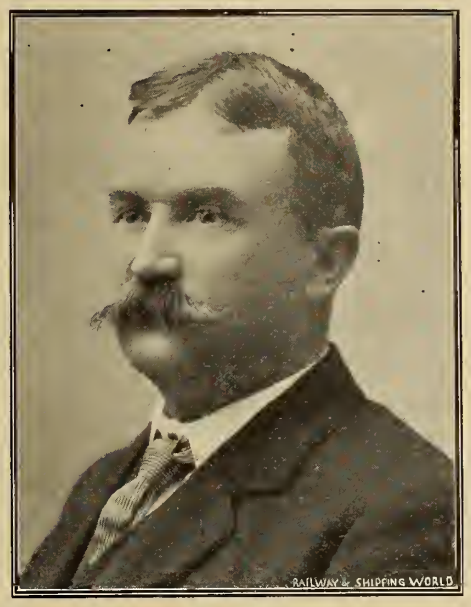
F. N. Risteen, Mechanical Superintendent Atchison, Topeka and Santa Fe Ry., Topeka, Kan., who died there recently, was a native of New Brunswick, and was in the C.P.R. service for some years before going to the United States.

Owen McKay, formerly Chief Engineer, Lake Erie and Detroit River Ry., Walkerville, Ont., and for some time with the Pere Marquette Rd., after it took over the L.E. and D. R. Ry., it is understood is likely to be appointed city engineer of Windsor, Ont.

Jos. Wallace, formerly G.T.R. freight agent at Hamilton, was presented with a purse containing $1,100 by the merchants of Hamilton, on his leaving the city for the Northwest. The members of the G.T.R. freight staff gave him a travelling bag, and Mrs. Wallace an umbrella.

W. H. Harper, C.P.R. city ticket agent, Chatham, Ont., was burned to death in a fire which destroyed his summer cottage at Erieau, Ont., May 21. He had been for some years a member, of the Canadian Ticket Agents' Association, and was 3rd Vice-President in 1903 and 1904, and Second Vice-President in 1905.

In the action of A. B. Morine against R. G. Reid, for $52,000 for professional services,



W. H. HARPER,

City Ticket Agent, C.P.R. Chatham, Ont., who was burned to death at Erieau, Ont., May 21.

the Newfoundland courts have been asked to order the plaintiff to specify items and details of the work done by him, the consultations and attendances, the time occupied on each item and the amount he charges therefor.

R. D. Pinneo, formerly Freight and Passenger Agent, White Pass and Yukon Route, Vancouver, B.C., has been appointed Northwestern Freight Agent, Pacific Coast Steamship Co., and will have direct charge of freight traffic in Washington, Oregon, British Columbia and Alaska, with headquarters at 113 James St., Seattle, Wash.

Jas. Dunsmuir, who has been appointed Lieutenant-Governor of British Columbia, is next to his mother the principal owner of the Dunsmuir estates on Vancouver Island, which owns the Wellington Collieries and Railway, and a number of steam and sailing vessels. He was President of the Esquimalt and Nanaimo Ry., owned by the estate, until its transfer in 1904 to the C.P.R.

F. Price, who has been appointed Superintendent of Car Service, G.T.R., was born at Montreal, June 11, 1864, and entered railway service in 1879 as telegraph operator on the G.T.R. He has been successively, shorthand clerk, clerk to Superintendent, secretary to General Superintendent, chief clerk to Car Service Agent, chief clerk to Manager; and from 1902 to the date of his present appointment, Master of Transportation, Middle Division; entire service with the G.T.R.

Walter White, who has been appointed joint agent G.T.R. and Wabash Rd. at Black Rock, N.Y., was born June 4, 1866. He entered the G.T.R. service in 1882 as messenger to the Superintendent, Toronto Union Station. From 1883 to 1889 he was telegraph operator, and from 1889 to 1896 secretary to assistant superintendents at London and Toronto. Subsequently he was successively chief clerk to the Superintendent at Montreal; Secretary to the Manager, F. H. McGuigan; chief clerk to the Superintendent at Toronto; Superintendent of Toronto Terminals, and Trainmaster at Palmerston, Ont.

W. LeB. Ross, who has been appointed Local Treasurer G.T. Pacific Ry. at Winnipeg, was born at Ottawa, Aug. 9, 1868, and entered railway service in 1887, his record being: Aug., 1887, to July, 1890, Audit Department Canada Atlantic Ry.; July, 1890, to 1890, in freight account office same road; 1890 to 1892, in Treasurer's department same road; 1892 to Oct., 1905, Cashier same road. In 1895 the duties of Paymaster were added to those of Cashier, and during the same period the Ottawa, Arnprior and Parry Sound Ry. was added to the C.A. Ry. From 1889 to Oct., 1905, he also acted as Cashier of the Canada Atlantic Transit Co.

M. C. Sturtevant, who has been appointed General Assistant, G.T. Pacific Ry., Winnipeg, was born at St. Albans, Vt., Aug. 28, 1866, and entered railway service in 1880, as messenger in the office of the Trainmaster, Central Vermont Ry., since which he has been consecutively to Nov. 1, 1889, clerk to General Manager and clerk to General Superintendent, same road; Nov., 1889, to Jan., 1890, clerk General Passenger Agents' Department, Chicago, Rock Island and Pacific Ry., at Chicago, Ill.; Jan. to Mar., 1890, clerk to Superintendent Illinois Central Rd., at Chicago; Mar., 1890, to Nov., 1892, clerk and agent Pullman Palace Car Co., at Chicago; Nov., 1892, to Feb., 1898, clerk and chief clerk to Superintendent of Transportation, Illinois Central Rd., at Chicago; Feb., 1898, to May 20, 1906, Car Service Agent, G.T.R., at Montreal.

E. H. Fitzhugh, whose portrait appears on the first page of this issue, was born in Montgomery County, Mo., Feb. 1, 1853, and was educated at the public schools in St. Louis, Mo. He entered railway service in 1873, as clerk in the Master Car Builder's office, St. Louis, Kansas City and Northern Ry., since which he has been consecutively in car mileage office, same road; to 1889, chief clerk to Superintendent, Western Division, Wabash, St. Louis and Pacific Ry.; 1889 to Jan., 1896, Master of Transportation, Wabash Rd., successors to the W., St.L. and P. Ry., Moberley, Mo.; Jan., 1896, to May, 1899, Superintendent Middle Division, G .T. R., Toronto; May, 1899, to Dec., 1904, Vice-President and General Manager, Central Vermont Ry., St. Albans, Vt.; Dec., 1904, to date, Third Vice-President, G.T.R., Montreal, and Vice-President Central Vermont Ry.

A. Cowan, Traffic Manager, Montreal and Lake Superior Line, died somewhat unexpectedly at his residence, Hamilton, Ont., May 10, aged 54. The cause of death was typhoid-pneumonia. On April 23, he left Sarnia on board the company's str. Arabia, for the purpose of installing a new agent at Port Arthur. He was not well before leaving, and on the trip he practically took over the duties of purser. On reaching Port Arthur, he complained of being seriously ill, and decided to return home on the company's str. Neepawah. He grew worse on the trip, and

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when he reached Hamilton, May 5, he was in a very serious state with typhoid and double pneumonia. He never rallied and died May 10. He had been engaged in transportation service for over 30 years, starting in the G.T.R. freight department and working up through the various offices until he was chief clerk to the General Freight Agent at Hamilton. He was then appointed city freight agent, which position he held for about 16 years until 1901, when he became Travelling Freight Agent for the Northern Navigation Co. In 1904 the M. and L.S. Line was formed and he was appointed Traffic Manager. Two sons are in the service of the company, H., city freight agent, Toronto, and H. W., in the Traffic Manager's office, Hamilton.

RAILWAY DEVELOPMENT.

Projected Lines, Surveys, Construction, Betterments, Etc.

Fording Valley Ry.—Application is being made at the current session of the Dominion Parliament for an act incorporating a company for the purpose of constructing a railway from the British Columbia Southern Ry. near the confluence of Elk River and Michel Creek, B.C., to the Fording River, along this river valley to Henrietta Creek; and along the Henrietta Creek valley to the boundary of Alberta, thence northeasterly to Okotoks, Alta., with power to construct branch lines up Grace, Ewin, Smith, Lewis and Henrietta Creeks, in British Columbia. Smith and Johnston are solicitors for the applicants.

Grand Trunk Ry.—The proposal to carry out a large number of improvements at London, Ont., which was discussed with the City Council, and which was generally approved of, has fallen through, the council being opposed to the voting of the $300,000 bonus asked for. (May, pg. 271.)

James Bay Ry.—Tracklaying on this line between Toronto and Beaverton was completed May 17, the last spike being driven in the bridge over the Don Valley. Ballasting has been completed from Parry Sound southerly to Vandorf, which is 25 miles north of Toronto, and is now being pushed forward as fast as possible. It is expected that the line will be opened for traffic in July. On the section north from Parry Sound construction is in progress to French River, and a contract has been let to McCoy and Wilford for grading about 20 miles northerly from the proposed crossing of the C.P.R. near Wahnapitae, Ont. Plans have been filed at Ottawa showing location of the entrance from the Don Valley to the waterfront at Toronto, and for the line from Georgian Bay to Ottawa. (May, pg. 255.)

Klondike Mines Ry.—An order-in-council has been passed on the recommendation of the Minister of the Interior, approving of an extension of the line from Dawson to Grand Forks, now under construction; from Grand Forks to the Stewart River, thence to a point near the source of the Stewart River, and to a point at the confluence of the same with the Yukon River; and authorizing the grant of a right-of-way for the same. (May, pg. 255.)

Michigan Central Rd.—The second track work now in progress on the M.C.R. is really a completion of a double track between Bridgeburg and Windsor, Ont. The work is being done in three sections, viz.: Bridgeburg to Welland, Ont., about 19 miles; Hagersville to Springfield, about 47 miles; and Ridgetown to Tilbury, about 30 miles, 96 miles out of a total distance of 250 miles from Bridgeburg to Windsor. When this work is completed the company will have a double track line between Buffalo and Chicago, passing through Ontario from the Niagara River to the Detroit River. W. F. Tench and Co., Detroit, Mich., and Niagara Falls, Ont., have the train work on the sections between Bridgeburg and Welland, and between Ridgetown and Tilbury; and J. Dewhurst, South Woodslee, Ont., has the train work on the Hagersville-Springfield section. The company is doing all the steam shovel work, as well as the tracklaying and ballasting. It is expected to have the whole work finished this fall. (May, pg. 255.)

Montreal Bridge and Terminal Co.—A meeting of shareholders was called to be held at the offices, 3 Beaver Hall Square, Montreal, May 30, for the purpose of electing directors, passing by-laws, and other general business.

Pacific and Atlantic Ry.—The Dominion Parliament is being asked at its current session to pass an act declaring the railway works which the P. and A. R. Co. is authorized, by acts passed by the Ontario Legislature, to undertake, are for the general advantage of Canada, and that the P. and A.R. is authorized to construct the same within the time specified in Sec. 117 of the Railway Act. Authority is also asked to amalgamate with other companies or to enter into agreements with the same for the sale or lease of its railway, or any portion thereof. The railways specifically mentioned are the C.P.R., G.T.R., Algoma Central and Hudson Bay Ry., Manitoulin and North Shore Ry., and the Canada Central Ry.

Quebec Central Ry.—Reference to the proposed extensions of the company's lines will be found in the report of the annual meeting on pg. 317. The extension from Scott's is for the purpose of securing a connection with the Quebec River Bridge, now under construction, and the extension from Beauceville to the River Famine is the first part of a project to connect the line with the Temiscouata Ry., which is controlled by the same interests as the Q.C.Ry. This projected line will follow the Quebec-New Brunswick border for the main part of the distance. The press report that the directors had ordered the immediate construction of the Scott's-Quebec Bridge line is, we were officially informed, May 16, incorrect. (Feb., pg. 65)

St. Mary's River Bridge Co.—Application is being made at the current session of the Dominion Parliament for an act extending the time for obtaining the consent of the U.S. Government to the building of a bridge across the St. Mary River at Sault Ste. Marie, for a period of five years.

White Pass and Yukon Ry.—Reports from Skagway state that no new construction is contemplated for the current season. In regard to betterments, the most important work to be undertaken is the replacing of a number of wooden bridges with steel structures. (Feb., pg. 65.)

Latest C.P.R. Appointments.—W. B. Howard has been appointed Acting District Passenger Agent at St. John, N.B., succeeding F. R. Parry, transferred.

F. R. Parry, heretofore District Passenger Agent C.P.R. at St. John, N.B., has been appointed District Passenger Agent at Boston, Mass., succeeding the late H. J. Colvin.

W. Linson has been appointed city passenger agent at Washington, D.C., succeeding D. H. Morse, appointed cashier at New York

The title of T. G. Orr, who is sole agent of the C.P.R. in Pittsburg, Pa., is Travelling Passenger Agent, and his office is 506 Smithfield St.

W. J. Atchison, heretofore in the C.P.R. telegraph department, Montreal, has been appointed city passenger agent Sault Ste Marie, succeeding the late T. R. Harvey.

C.P.R. Betterments, Construction, Etc.

Glen Yard, Montreal.—The C.P.R. has completed the laying out of a large passenger coach yard at Westmount, near Windsor St. station, Montreal. The track capacity for passenger coaches is over three miles and the total yard trackage is over four miles. The buildings are located on the south side of the yard, and in addition to an 18-stall locomotive house with 70 ft. turntable, there is a large 400 h.p. boiler plant to supply light, heat and power to the buildings and throughout the yards. The parlor, sleeping and dining car department, including the stores, is housed in a double story building 192 x 40 ft.; at the west end of the building a cold storage plant is equipped for cold air refrigeration for the dining car supply service. Carpenters, painters, upholsterers, electricians and repair men have quarters in the general car repair shop, which is 30 x 178 ft., equipped with facilities for handling coach repairs. A thawing-out house, 40 x 250 ft., joining the general car repair shop, has two lines of tracks inside and a wheel pit from house to yard. A bunk house with 12 berths, including dining, parlor and reading accommodations, is provided in the rear of engine house for trainmen. The oil house, 20 x 30 ft., is placed conveniently to the various workshops. The oil is stored in steel tanks enclosed in concrete chamber in basement and connected with piping to the ground floor where the pumps are located. The gas house, 30 x 90 ft., is located on the south side of turntable so as to be isolated from the other buildings. It is equipped with compressors, meters, storage tanks, and mechanical apparatus for generating acetylene gas. On the east side of the yard are provided inward and outward bound engine tracks with ash pits, water and coal handling apparatus, the coal and ashes being handled by a locomotive crane with grab bucket.

Montreal-Smith's Falls Second Track.—We were advised, May 18, that the company had not let any contracts for the construction of the second track on the Eastern Division between Montreal and Smith's Falls, Ont., as stated in local press reports.

Bridge Filling, etc., Central Division.—The earth work to be done on the Central Division during the current year includes 7,500 cubic yards of bridge filling, and 109,200 cubic yards of roadbed and trackwork on district 1; 36,000 cubic yards of bridge filling; 168,990 cubic yards of roadbed and track work, and 74,700 cubic yards of new construction on district 2; 6,300 cubic yards of bridge filling; 26,550 cubic yards of roadbed and trackwork, and 428,000 cubic yards of new construction on district 3; 30,000 cubic yards of bridge filling; 340,000 cubic yards of roadbed and trackwork, and 160,000 cubic yards of new construction on district 4.

Line from Moose Jaw, Sask.—The grading for the 14 miles of the branch line from Moose Jaw northwesterly is almost completed, and it is expected that the tracklaying and ballasting will be finished this season. The line runs north from Moose Jaw to Tuxford, and is then projected northwesterly in the direction of the Elbow of the Saskatchewan River.

Western Division Steam Shovel Work.—The steam shovel work to be carried out on the Western Division during the current year includes 9,800 cubic yards of bridge filling, 279,000 cubic yards of roadbed and trackwork, and 291,000 cubic yards of new construction on district 1; 30,600 cubic yards of bridge filling, 430,000 cubic yards of roadbed and track work, and 24,000 cubic yards of new construction on district 2.

Pacific Division Steam Shovel Work.—During the current year there will be moved

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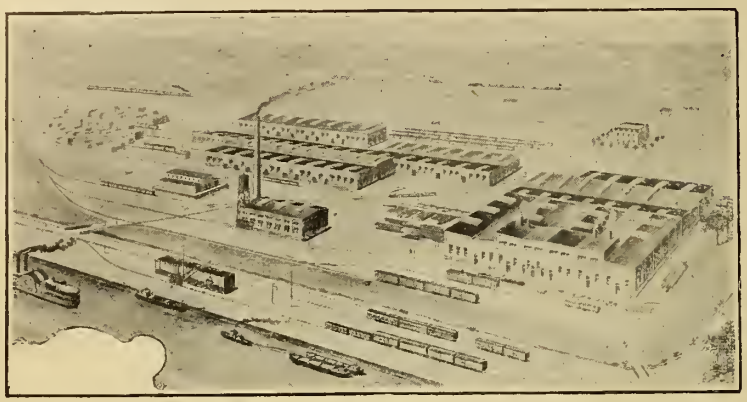

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114,000 cubic yards of material for bridge filling, and 285,160 cubic yards for roadbed and trackwork on district 1; 47,000 cubic yards of material for bridge filling, 522,500 cubic yards for roadbed and trackwork, and 45,000 cubic yards on new construction on district 2; 744,500 cubic yards of material for bridge filling, and 21,000 cubic yards for roadbed and trackwork for district 3.

Railway Rolling Stock Notes.

The Intercolonial Ry. is in the market for 200 platform cars.

The James Bay Ry. has received 100 flat cars from the Crossen Car Manufacturing Co., Cobourg, Ont.

Two steam shovels for the G.T. Pacific Ry. have been completed by the Locomotive and Machine Co. of Montreal, and are to be delivered June 1.

The Crossen Car Manufacturing Co. has delivered five combined second-class sleeping and baggage cars to the I.C.R., and 100 flat cars to the James Bay Ry.

The C.P.R. has constructed at its Angus, Montreal, shops a motor car, which is being tested on lines in the vicinity of Montreal. The car is not yet in shape for service.

The Canada Car Co., Montreal, has delivered two 30-ton box cars for the Mooney Car Line Co., to the Mooney Car and Biscuit Co., Stratford, Ont., and is now delivering 30-ton box cars for the G.T. Pacific Ry.

The C.P.R. between April 20 and May 14 placed orders for the following rolling stock at its Angus, Montreal, shops: One sleeping car, one baggage-commissariat car, 90 box cars, 85 flat cars and 15 stock cars.

The Intercolonial Ry., between April 17 and May 15, received five combined second-class and baggage cars from the Crossen Car Manufacturing Co., Cobourg, Ont., and 40 dump cars from Rhodes, Curry & Co., Amherst, N.S.

The Temiskaming and Northern Ontario Ry. Commission has bought in the United States four second-hand passenger cars for second-class travel. An order will probably be placed in the near future for four first-class passenger cars.

The Locomotive and Machine Co., of Montreal, delivered 10 ten-wheel locomotives for Mackenzie, Mann & Co.'s lines during May. Four of these have been placed on the Canadian Northern Ry. and four on the Halifax and Southwestern Ry. The other two have not been sent out.

The C.P.R. is asking prices on 50 steel ore cars, 80,000 lbs. capacity, and is purchasing material for 1,000 box cars, 60,000 lbs. capacity, to be built at the company's Angus, Montreal, shops. These 1,000 cars are in addition to those previously mentioned as having been ordered.

The Quebec Central Ry. is building 15 stock cars and two refrigerator cars at its Sherbrooke, Que., shops. Six refrigerator cars are being delivered by Rhodes, Curry & Co., Amherst, N.S., and it recently received two locomotives from the Canadian Locomotive Co., Kingston, Ont.

A paragraph in the Railway Age, May 7, stated that the Sydney and Louisburg Ry. had ordered 15 box cars from Rhodes, Curry & Co., Amherst, N.S. We are advised that these cars were delivered in Mar., and that the S. and L. Ry. has not been placing any orders recently for similar cars.

The C.P.R. between April 20 and May 14 received the following rolling stock: Six locomotives from the Locomotive and Machine Co. of Montreal; two locomotives from the Canadian Locomotive Co., Kingston, Ont.; two locomotives, five sleeping cars, two parlor cars, 125 ballast cars and 310 flat cars from its Angus, Montreal, shops.

The Temiskaming and Northern Ontario Ry. has duplicated its order for two locomotives, general dimensions of which were given in our May issue, with the Locomotive and Machine Co. of Montreal. The locomotives were to be delivered by May 31. It has also placed an order with the Crossen Car Manufacturing Co., Cobourg, Ont., for two baggage and express cars.

The Canadian Northern Ry. has placed an order with Rhodes, Curry & Co., Amherst, N.S., for 100 flat cars, 30 tons capacity, to be built to the company's standard specifications for this type of car. They are for immediate delivery. It has just received 250 flat cars from Rhodes, Curry & Co., and two dining cars, two passenger coaches and three sleeping cars from the U.S.

Dominion Railway Legislation.

The Deputy Governor-General, May 11, assented to the acts affecting the following railways, etc., passed at the current session of the Dominion Parliament:

Atlantic, Quebec and Western Ry.—Extending time for construction.

Boundary, Kamloops and Cariboo Central Ry.—Extending time for construction, and authorizing an extension of lines.

Calgary and Fernie Ry.—Act of incorporation.

Campbellford, Lake Ontario and Western Ry.—Extending time for construction.

Canadian Pacific Ry.—Extending time for construction of various lines.

Crawford Bay and St. Mary's Ry.—Extending time for construction and authorizing an extension of the lines.

Esquimalt and Nanaimo Ry.—Extending time for construction.

Great Northwest Central Ry.—Extending time for construction.

Kingston and Pembroke Ry.—Extending time for construction.

Kootenay and Arrowhead Ry.—Extending time for construction.

Nakusp and Slocan Ry.—Extending time for construction.

St. Clair and Erie Ship Canal Co.—Extending time for construction.

South Ontario Pacific Ry.—Extending time for construction.

West Ontario Pacific Ry.—Extending time for construction.

White Horse and Alsek Ry.—Extending time for construction and authorizing an extension of lines.

Canadian Ticket Agents' Association.—The annual meeting of this association at Mobile, Ala., and trip to New Orleans, La., which had been fixed for the second week in October, has had to be postponed to early in November in consequence of the Knights of Pythias, 100,000 strong, having arranged for a 10 days' occupancy of the Crescent City, covering date selected in October. However, the party will rather gain by the change than otherwise, as it is conceded by all who are in a position to give an opinion that for pleasant weather and other advantages, the month of November in the south is preferable to October. Satisfactory terms have been made with the Bienville and Cawthon hotels at Mobile, and the St. Charles at New Orleans, for accommodation, and with the Pullman Co. for car service, particulars of which will be sent members in due course.

J. C. Darnborough, for 22 years station master at the Union Station, Toronto, has resigned, the position becoming vacant June 1 Mr. Darnborough will take a lengthened holiday before deciding on any plans for the future.

Canadian Railway Contractors in the U.S.

The Cornwall Freeholder points out that a surprising proportion of the great railway contractors of the continent are Glengarry or Stormont men. J. D. McArthur, who has recently secured the contract for building the western section of the Grand Trunk Pacific Ry., aggregating over $13,000,000, is a Lancaster man. By June 1, he will have 10,000 men on his pay-roll. A. R. Macdonald, who, with his partner, Mr. Hogan, is to build four or five million dollars' worth of the Government section, hails from Williamstown. D. D. McBean, who has just finished the Harlem tunnel at New York, an enormous work, is a Lancaster boy. James A. McIntosh and Donald McIntosh, of Milwaukee, Wis., were recently awarded a contract for building 1,500 miles of road for the Chicago, Milwaukee and St. Paul Ry., the price of which was nearly $50,000,000. This is said to be the largest contract ever given to one firm for railway building on the continent of America, or in the world for the matter of that. Their native place is St. Andrew's, Cornwall. Besides these there are the Grant brothers of California, W. A. Grant of Illinois, and the McDougalls of Milwaukee, all representatives of that Celto-Canadian element that has made so distinct a mark in the Glengarry-Stormont settlements of Ontario. There must be something in the mental equipment, as well as in the big, vigorous frame of the people of that section which fits them for this sort of work.—Toronto Globe.

National Transcontinental Railway.

The Commissioners of the Transcontinental Ry. will receive tenders to June 7, for 65,000 tons of 80-lb. steel rails, open hearth or Bessemer, at the option of the Commissioners; together with the necessary splice bars, bolts and nuts, spikes, nut locks and 1,545,000 ties. Tenders are to be accompanied by a marked cheque for 10% of the amount of the tender, and the rails, etc., are to be delivered in such quantities and at such places as the Commissioners may direct. The rails, etc., are for use on the line from near Quebec to La Tuque, Que., and from Winnipeg, Man., to Peninsula Crossing, Ont.

A report from Ottawa states that it is expected that the Commissioners will be in a position to ask for tenders for the construction of the Quebec-Moncton section of the National Transcontinental Ry, early in July,

GRAND TRUNK PACIFIC RY.

Track-laying was commenced at Portage la Prairie, Man., May 2, and a number of sidings have been put in in order to facilitate the movement of construction trains and to store steel rails and other supplies which are being delivered. Tracklaying on the main line is expected to be commenced at an early date.

A special meeting of the shareholders of the G. T. Pacific Ry. was called to be held in the company's offices at Montreal, May 29, for the purpose of ratifying and confirming a by-law providing for the issue of £3,000,000 of debenture stock and other business.

An order-in-council has been passed directing that the G. T. Pacific Ry. shall be considered the first applicant for acquiring the mining rights under any lands required for right of way, stations, station grounds, workshops, buildings, yards and appurtenances required for the construction and working of the railway.

The Belfast and Northern Counties Ry., owned by the Midland Ry. of England, in order to encourage suburban traffic gives a pass for 10 years to persons who build houses for their own occupation on its line to Lorne.

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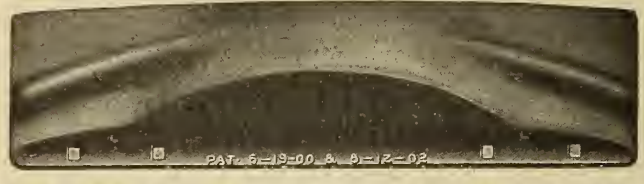

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Ontario General Railway Legislation.

The Ontario Legislature at its recent session passed three important acts affecting steam and electric railway interests. The first is an act respecting Steam, Electric and Street Railways, which is referred to as the Ontario Railway Act, 1906, and comes into effect June 1. Heretofore there have been separate acts dealing with steam railways, electric railways and street railways in the province, and numerous amending acts have been passed from session to session, so that the law was in a rather complicated condition. The Act of 1906 brings into one act the whole of the acts relating to railways, steam, electric and street, incorporates numerous sections of the Dominion Railway Act, 1903, and adds several provisions necessary by the great developments being made in the direction of electric traction, and the introduction of motor cars as an adjunct to a regular train service. The act contains sections dealing fully with the organization of companies, the issue of stock and securities, the construction and operation of railways, interchange of traffic, amalgamation and running arrangements with other companies, and everything in connection with the operation of trains. Of the sections relating to electric railways, it is provided that passengers on summer cars are liable to a fine of from $2 to $10 for standing on the side steps of street cars. No electric railway, even on its own right of way, may run on Sunday. This, of course, does not apply to street railways running under federal charters. Sunday concerts in parks, if no fee be charged, are allowed. Electric railways, not street railways, running on highways, are restricted to the 25-year franchise, unless the municipalities agree to extend. Railways are required to report all accidents, whether serious or not, to the board. A penalty of $15 is provided for persons doing damage to telegraph, telephone or power lines. The tolls to be charged are not to exceed 5c. for any distance not exceeding three miles, and beyond that distance not exceeding 2c. a mile for the distance actually travelled, with special fares for pupils attending schools, and for children under 10 years of age. Members of the Legislature are to have free transportation, as well as members and officers of the Railway and Municipal Board, which is created by a separate act to carry the Act into effect. Nine acts are repealed in their entirety, and two in part; the unrepealed portions being incorporated. Many of the special clauses contained in the acts of incorporation of electric and steam railways, operating under provisional charter, are grafted into the general railway act. The Act gives the Ontario Government a more direct power over the railways in the province subject to provincial jurisdiction; a more complete control over electric railways, and through the Railway and Municipal Board, powers which will have the effect of directing and controlling the construction of electric railways in the province. One result of the interest of the province in electric railways is the presence before the Railway Committee of the House of Commons of counsel to see that provincial rights are not interfered with in the numerous bills before the Dominion Parliament for the construction of electric railways entirely within the province.

The second act provides for the establishment of a Railway and Municipal Board, to consist of a chairman at $6,000 a year, two members at $4,000 a year each, a secretary at $2,000, and other officers to be appointed by the Commission. The duties of the Board are to carry out the provisions of the Ontario Railway Act. The sections defining the duties of the Board are similar to those contained in the Dominion Railway Act, 1903, with such alterations as are necessary to make them apply to the province. It also provides (sec. 58) for arbitration by the Board in cases of disputes between employes and the companies, (sec. 59) for mediation in case of a strike or lock-out, and (sec. 63) for the enforcement of municipal agreements with railway companies of all kinds.

The third act deals with the taxation of railways. The tax on railways over 150 miles in length is doubled, rural electric railways running on highways are to be taxed, as well as electric railways running upon their own right of way. The rates of taxation are: Railways under 150 miles in length, $15 a mile for single track, and $5 a mile for each additional track. Railways over 150 miles in length in organized territories, $60 a mile for single track, and $20 a mile for each additional track, and in unorganized territory $40 and $10 a mile respectively. This also applies to electric railways running on their own right of way. It also provides that of the amount realized $30,000 a year shall be utilized towards meeting the expenses of the Provincial Railway and Municipal Commission, and the balance distributed pro rata among the municipalities, less a per capita charge for the maintenance of the inmates of the various provincial institutions belonging to each municipality.

Minneapolis, St. Paul and Sault Ste. Marie Construction Works.

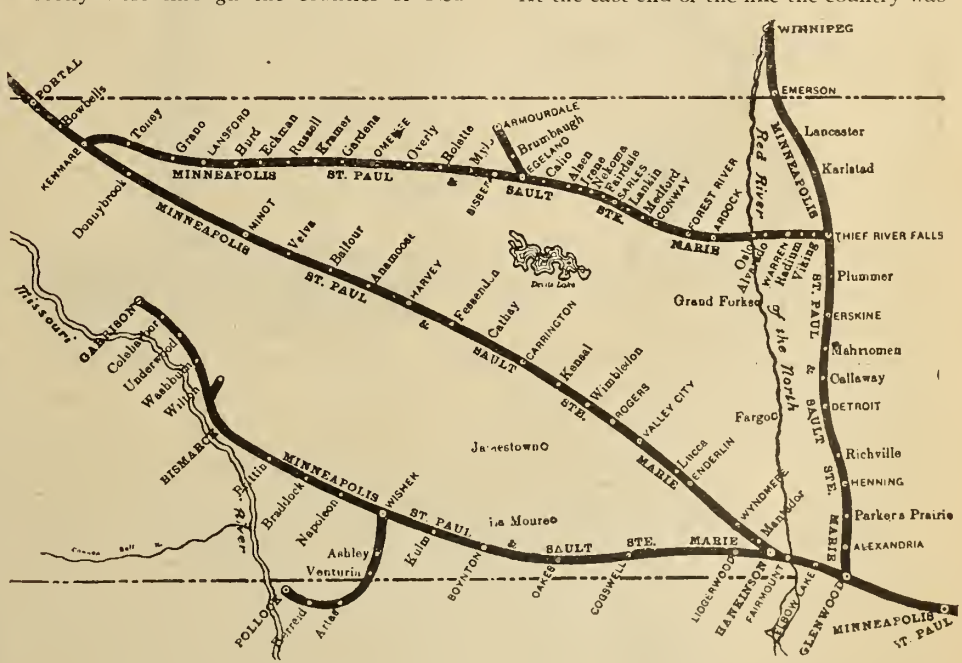
In many respects the most notable piece of railroad construction in the U.S. in 1905 was the building of the Thief River Falls extension of the Minneapolis, St. Paul and Sault Ste. Marie Ry. Starting at Thief River Falls, Minn., on the Minneapolis-Winnipeg line of this road, it runs almost directly west through the counties of Red Lake and Marshall in Minnesota, and Walsh, Cavalier, Towner, Rolette, Bottineau and Ward in North Dakota, to Kenmare, on the main line from Minneapolis, the objective of which is the Pacific coast. The total distance is 296¼ miles, and the rapidity with which it was built is one of its features of note. The first dirt was moved on April 7, grading was completed Nov. 15, and tracklaying four days later. The season was unusually wet, in fact the wettest experienced in this region in 14 years, and there was also a scarcity of laborers, due to the great demand for harvest hands. These conditions caused unexpected delays to the contractors, both in grading and tracklaying.

Location was begun in Sept., 1904, and completed in April, 1905. It was made under a great many difficulties owing to the severe conditions of the winter. The location being practically all the way in a prairie country, the members of the engineering parties living in tents suffered a great many hardships owing to the numerous snowstorms and blizzards. On the prairies it is very rare to have a calm day, and with the thermometer ranging from zero to 45 deg. F. below for weeks at a time, a great deal of time was lost. On account of these conditions the practicability of doing any locating work during the winter on the prairies is very seldom counted on.

The line is remarkable in regard to its alignment and grades, there being one tangent of 50 miles and one of 40 miles, and numbers of others of 20 miles. The curvature is very light, there being but one 3-deg. curve at the extreme west end at Kenmare, two 2-deg. curves, and the rest 1-deg. and 30-min. curves, principally the latter. The gradients are very light, being three-tenths of 1% eastbound from Grano, 275 miles west from Thief River Falls; westbound gradients are principally three-tenths, with the exception of the gradients getting out of the Red River valley and the Moose River valley, 20 miles east of Kenmare, which are five-tenths of 1%. The line is well built with roadbeds in cuts 30 ft. wide and embankments 16 to 20 ft. wide, depending on their heights. The grading and construction work was let to Winston Bros. Co., of Minneapolis, the latter part of March, 1905, to be finished by Oct. 15, the company furnishing all bridge and culvert material.

At the east end of the line the country was very flat, wet and without drainage, necessitating practically all material being hauled on the first 15 miles with extreme hauls of 1½ miles where it was contemplated being able to borrow along the sides. These conditions required the changing of the plant from wheelers and slush-scrapers, which had been hauled in during the winter, to dump cars and track, and was the cause of considerable delay in getting the grading finished.

At the west end, for the first thirty miles, the work was heavy, averaging about 35,000 cu. yds. per mile, and being a hard clay



MINNEAPOLIS, ST. PAUL AND SAULT STE. MARIE RY. CO.'S WESTERN LINES.

The Kahn Trussed Bar

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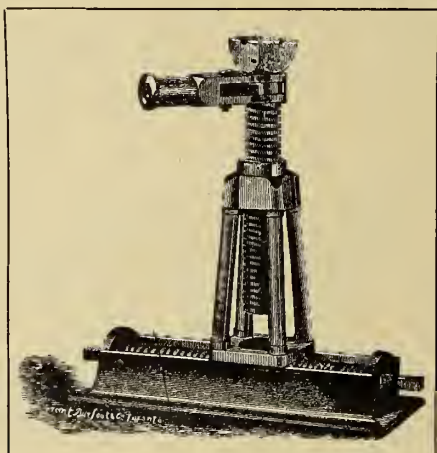

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BRASS NUTS

Lifting Screw - -	2½x14 in.
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Traverses - -	13 in.

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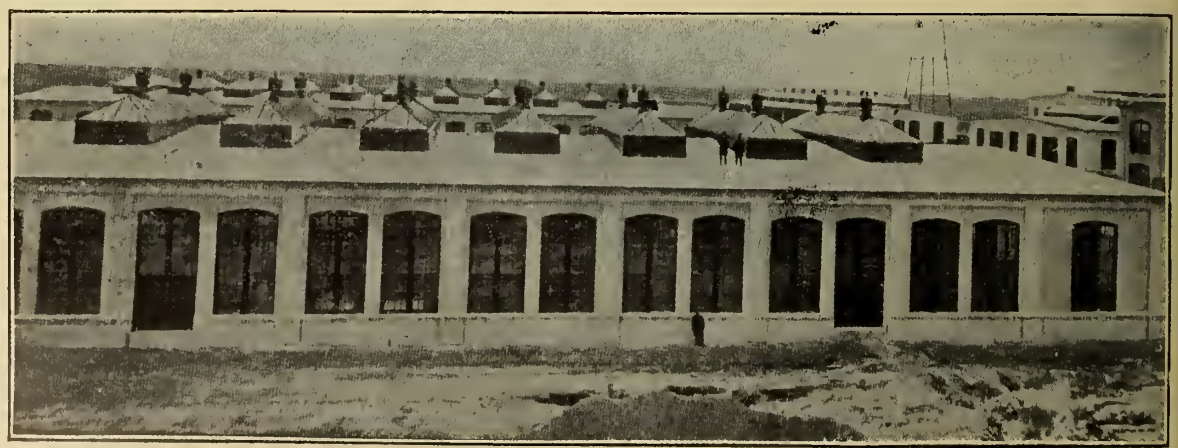

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material, it was very difficult to handle and very slow progress was made. The rest of the work was ordinary prairie work, averaging about 15,000 cu. yds. per mile, and no difficulties were met with except in obtaining laborers, which at all times were very scarce and difficult to get. The country traversed is practically without waste land, and is one of the richest wheat belts in the country. It is said to be practically one continuous wheat field for the entire length of the line. A conservative estimate of the men shipped out from Minneapolis is 10,000, and not over 10% went to work on the railway, the remainder mostly going to the harvest fields where wages of $2.50 and $3.00 a day and board, and $6.00 a day for teams and board, were paid, against $2 a day for men, and $4.50 for teams without board paid by the contractors. Under such conditions it is remarkable that the contractors were able to maintain a sufficient force and to get the work done.

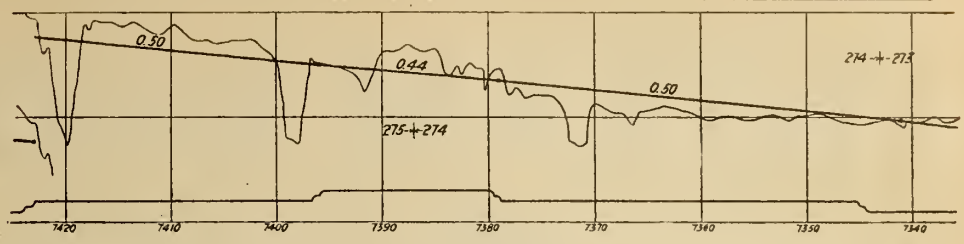
The plant force engaged on the work consisted of 30 grading machines used in connection with dump wagons, 14 of these machines being hauled by traction engines with a great deal of success, the rest of the machines being hauled by teams; 3 steam shovel plants, 300 dump cars and the necessary track, and 300 to 400 wheel and slush-scrapers. The average daily force of men was 1,500, including teamsters, and 800 teams. The actual number of working days was reduced to 120, after deducting loss of time on account of rainy weather and Sundays.

In grading the line there were 4,500,000 cu. yds. of earth handled, averaging about 38,000 cu. yds. each working day; 4,000,000 ft. b. m. cedar timber were used in culverts and 2,000,000 ft. Washington fir and white pine in bridges, all bridges being of timber construction, excepting the Red River crossing, which consists of a single track, 241 ft. metal draw span and one 50-ft. metal through girder span.

The track was laid under contract by E. J. Brennan, of St. Paul. Tracklaying machines with rail and tie trams operated by steam were used. Track was laid from each end, commencing at the east end July 1, and at the west end Aug. 11, which was about 40 days behind the time originally intended to commence at these ends, due to unfinished grade work. The tracklaying was finished Nov. 19, and for each working day each crew averaged 2.1 miles of main line mileage, besides laying 18 miles of side-tracks and passing tracks, and seven miles of tracks at two division points. The average daily force of each tracklaying crew was 110 (a full crew being 130 men), which would lay 6,500 ft. of track in 3½ hours, being full tied (3,000 ties to the mile), spiked and lined. This record of tracklaying is very remarkable, taking into consideration that the average per day did not include mileage of sidings, etc., and the delays caused in putting in 12 railroad crossings.

The road was put in operation for business Dec. 4 with all stations, terminal plants, etc., built. Thirty-two stations were located on the line, including 11 junction towns.

In addition to building the Thief River Falls line, the company built the Underwood extension of 20 miles on the Bismarck line, and the Egeland branch of 21 miles, the latter a branch of the Thief River Falls extension, both branches being in North Dakota. It also did 10 miles of revision work on its main line in Minnesota, making a total main line mileage built for the season of 347½ miles. We are indebted to T. Green, Chief Engineer, for the foregoing information.—Railroad Gazette.



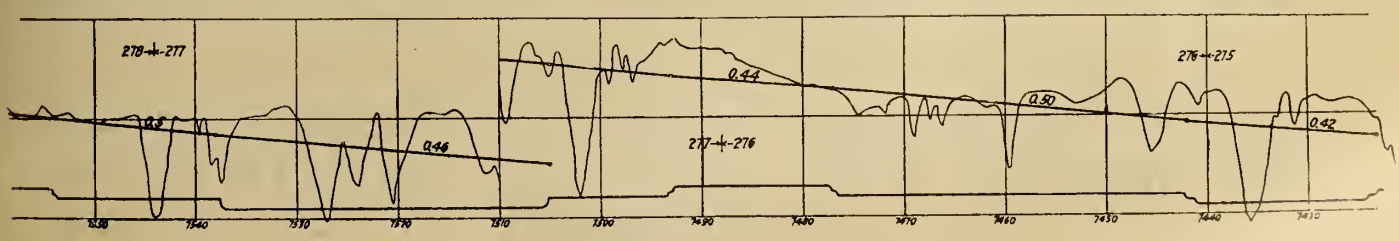
PROFILE, MILEPOST 275 TO MILEPOST 278, M., ST. P. AND S. S. M. RY.

Divisional Organization.

A railroad corporation on account of the extent of its operations and the diffusion of its energies requires a particularly flexible and adaptable organization. Railroads are vulnerable to blackmailers, to demagogues, and to hostile critics of all kinds, chiefly because their work is conducted to a large extent away from headquarters, and because the subordinate officers are not kept sufficiently informed as to the general policy which is to be pursued, and are not given sufficient leisure to keep their fingers on the pulse of trade and public opinion. Again, the possibilities of disaster through dishonesty and inefficiency are so many, that the senior officers often feel it their duty to restrict the authority of the juniors, and to indulge in criticism and a closeness of supervision which is irritating to a high-spirited man in the ranks below. Then there are the semi-technical departments, which require on the part of officers a special training. Such officers resent the intrusion of the authority of general officers who have not had that special training, but who, on account of organizing ability and operating experience, must necessarily carry the burden of general direction. The difference in the points of view of operating and of traffic officers is frequently a source of discord. The ambition of the traffic officer is to secure the business against all comers. The most powerful auxiliary he can have is a high-class operating service, more expensive than any competitor can afford, or considers desirable. The aim of the operating officer is to maintain the minimum service necessary to handle the business, at a maximum of efficiency, and at a minimum cost. The comparative ability of a traffic officer is estimated by heads or by tons, while that of the operating man is estimated by dollars.

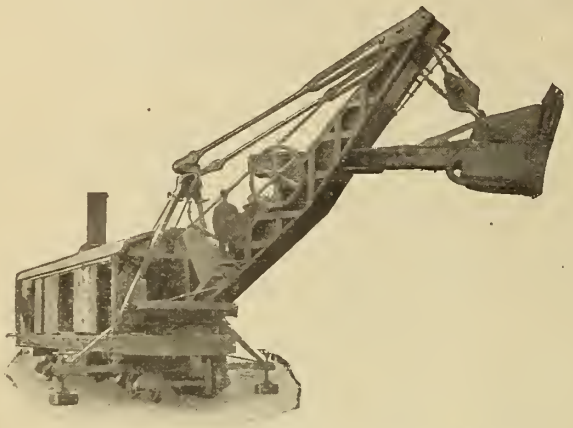
The operating forces of a railway are usually divided into three classes: (a) those employed in maintaining the property; (b) those engaged in maintaining the rolling stock; (c) those whose duty it is to move the traffic. The problem for the railway manager is to decide at what point the three classes will merge into each other. There must, of course, be a head governing the forces, (a), (b), and (c), responsible for the results obtained by their combined efforts. On English railways the three classes merge under the control of the Chairman of the Board; on American railways, owing to their length and physical peculiarities, the unit of authority is found in the Superintendent, General Superintendent, Manager, General Manager, or President. It would be foolish to dogmatically prescribe any apportionment of authority to apply to all railways; but I consider that, generally speaking, the best results are obtained by making the Superintendent the unit of authority controlling the three classes of operating employes.

In defining the boundaries of a Superintendent's district, the great considerations should be density of traffic, and the physical conditions of the road. The headquarters of a Superintendent should be as convenient as possible to the physical centre of his district. The dispatching office should be similarly located. In no case do I consider it advisable to have more than one dispatching office on a district. There should be on each district officers controlling the three branches of the service appointed by the Superintendent, with the approval of his superiors. Such district officers should report to, and receive their instructions from, the Superintendent only. On an ordinary district, these officers should comprise an Assistant Superintendent, or Trainmaster; a Master Mechanic; a Resident Engineer; a Chief Train Dispatcher; a Bridge and Building Master, and Roadmasters. Every five or six districts, according to traffic and roadbed conditions, should be grouped in a division, with a General Superintendent in control. He should be assisted by a Division Engineer, a General Master Mechanic, and a Car Service Agent. The duties of the Division Engineer should consist of the compilation of records; a detailed semi-annual inspection of the division; the promulgation of standards (furnished by the Chief Engineer); the preparation of plans, specifications, contracts, estimates, etc. He should be a consultant for the superintendents with respect to engineering matters, and should assist the General Superintendent by means of his technical attainments. The General Master Mechanic should be the General Superintendent's counsellor on mechanical matters; he should distribute power between districts; keep a check on round-house practice; keep himself informed as to cost of repair work, and general condition of motive power; and should frequently inspect and report to the General Superintendent on the operations of the District Master Mechanics.



PROFILE, MILEPOST 275 TO MILEPOST 278, M., ST. P. AND S. S. M. RY.

STEAM SHOVELS



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Can be readily lifted and carried by two men.
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Can be quickly taken apart for storage in baggage car.
Carries comfortably three passengers and luggage.
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The Car Service Agent should distribute cars between districts; follow all fast freight graphically; and report to the General Superintendent on all deviations from authorized car movements. Where conditions warrant it, the General Superintendents should report to a Manager, who would have the necessary technical experts on his staff to assist him in adopting and following the best general practice, and in accepting the best standards, in order to make the system of operation as uniform as diversity of climate and traffic conditions would permit. This plan of organization is called divisional, for the reason that by it all operating forces are controlled by one head on each operating sub-division of the railway. It is impossible in the majority of cases to secure men for superintendencies who will be expert in all branches of operation; but the only general bases of selection must be character, experience, and executive ability. They should be assigned to the various sections according to conditions. If traffic is dense and physical conditions normal, the Superintendent should be selected primarily for his transportation ability and experience; if traffic is light and roadbed and climatic conditions out of the ordinary, the Superintendent should be chosen for his maintenance of way knowledge; if through bad water, etc., locomotive troubles are chronic on a district, the Superintendent placed there should be a man of mechanical training. This is the general line on which I have proceeded in selecting Superintendents; and while, I am sorry to say, we have not a strictly divisional organization theoretically, it is working in actual practice gradually to that end, and when the powers that be can be induced to place their seal of approval on that system, I anticipate still more satisfactory results.

There are details in connection with such a scheme of organization which hardly come within the compass of a general paper of this nature, but I may possibly, with advantage to us all, discuss one or two features which would require consideration. If large repair shops are located on a district, they should not be under control of the District Master Mechanic, but of a Works Superintendent reporting to the General Master Mechanic. The main manufacturing shops of a system should be in charge of a Works Manager, reporting to the Superintendent of Motive Power. General Master Mechanics should have inspectors in the large repair shops who would specify what work was to be done on locomotives in for repairs, and who would see that the stipulated work was satisfactorily done. Large works of improvement or construction, involving contracts, which it might be deemed inadvisable to leave to the district forces, who are usually fully occupied with other work, might be placed directly under the Division Engineer, but in the general operation of a district he should have no commanding voice. In locating district officers, it is preferable to assign them to districts as far as possible removed from those on which they have served their apprenticeship. Officers placed in charge of large bodies of men should have magnetism and forceful personalities. Such faculties are born in a man's system, and cannot be acquired, or artificially stimulated or injected The man born to command can maintain strict discipline, and yet command the general good-will of his subordinates. Nothing should be left undone to develop esprit de corps, and to build up a sense of proprietorship in every employe. The men should be encouraged to make suggestions, and frequent conferences, or cabinet meetings, of district officers should be held, to which it might be advisable to invite a few employes of good standing, and with influence amongst their fellows. Such men would doubtless be gratified to find the confidence reposed in them, and the respect in which they are held by the other men, would prove a valuable asset to the company in the effort to bring its interests and its policies closer to the sympathies of the mass of employes.

Railway officers frequently assume the functions of coroners, and spend valuable time in holding post mortem investigations on the same old skeletons day in and day out, without ever drawing any practical lessons from the findings. Nagging, short-grained letters, written on ex parte evidence, cannot possibly accomplish anything. Nothing weakens an organization as much as to enmesh the district officers in red tape, or to frown on any evidence of initiative. Rather should they be instructed in the policy of the company, counselled when necessary, and given latitude on broad lines to accomplish what is expected of them. A system as uniform as is possible in a world which is always in evolution can be built up, and at the same time the individuality and initiative of the officers be preserved to the great advantage of the corporation.

It may be contended that this is an age of specialization and that departmental chiefs should have full swing. No man can dispute that it is necessary to have technically trained men in railway service, but the benefits of their special experience and knowledge can be diffused without placing operating forces under their control. When a strictly departmental system is followed, it will be found that some departments invariably make a favorable showing at the expense of another. In thus advocating the divisional organization, I am constrained solely by the fact that it is the co-operation of all operating forces under one head on an operating district, which will most effectually contribute to efficiency at the lowest possible expenditure of money.

[Paper read by G. J. Bury, General Superintendent Central Division, C.P.R., Winnipeg, Man., at Officials' Conference, C.P.R. Western Lines, Field, B.C.].

Comparative Performance Tests to Determine Locomotive Efficiency.

By Thomas McHattie, Master Mechanic, G.T.R., Montreal.

For a number of years the G.T.R. Co. has periodically conducted a series of tests of the different types of its larger capacity locomotives, for the purpose of determining what results could be obtained by innovations in the matter of design, which are introduced from time to time, calculated to increase the efficiency and service of the locomotive. Trials were made during Aug., Sept. and Oct., 1905, for comparison between a simple class mogul engine 20 x 26 inch cylinders, 63 inch driving wheels, carrying 200 lbs. steam pressure, with a long narrow fire-box having 33.43 square feet grate area, which has been taken as a base in making the comparison, and a two-cylinder compound class mogul engine, 22½ in. and 35 in. x 26 in. cylinders, and the diameter of wheel, the steam pressure and the grate area the same as on the engine before mentioned; they were practically sister engines with the exception of the compounding feature. The third engine put under test was also one of the two-cylinder type mogul class, sister to the former engine, with the exception that it was one of the semi-wide fire-box class with 41.51 sq. ft. of grate area. The steam pressure, size of cylinders, and the diameter of driving wheels were the same as the previous engine mentioned. The fourth engine under trial was one of our consolidation two-cylinder compound class, size of cylinders 22½ in. and 35 in. x 32 in., diameter of driving wheels 57 in., carrying 210 lbs. steam pressure, and having a fire-box with 53.00 sq. ft. of grate area.

These tests were not less interesting nor the data obtained less valuable than that which had been obtained from practically similar trials, which were conducted along the same way and under practically the same conditions, during previous years, and following out the same general practices so as to make the trials as complete in every detail as it was possible to do. It seems to me that railway companies do well to hesitate, or, at least, proceed cautiously, before making any very radical departure in locomotive design, as it is far better to determine by actual test and experiment that it is desirable to make a change.

Now and again there seems to be a tendency among motive power men or the builders, or both, to make some radical departure in the design of locomotives in some part. This inclination seems to spread like a fever, and certain types of engines are put into commission regardless of the prevailing conditions of the service, even though it is work for which they are not at all adapted. Therefore, to avoid any difficulty of this kind, it would seem that the railway companies (who usually suffer the most by reason of these experimental changes) should devote some time in making exhaustive tests to determine exactly what type or design of locomotive best suits their own requirements, rather than be guided by attractive reports regarding results that may be obtained elsewhere by certain types of locomotives, possibly without knowing much regarding the conditions under which these engines work. For this reason it has been the policy of our company to proceed cautiously and with careful investigation and consideration before making any radical changes in its locomotive practices. While it is perhaps the proper thing to be progressive in this work, still the practice should be to couple progress with prudence, and this can be accomplished by railway companies which make periodical locomotive tests, which should be conducted with the greatest care possible, so that the data gathered may be strictly accurate in every detail.

All the tests we have conducted have been made over the territory between Montreal and Brockville and return. This district is slightly undulated, with numerous gradients, double track, and is an ideal section for making tests of this kind. The run is 126 miles in one direction. The double track avoids the troublesome delays in crossing trains, etc., so that the only stops to be made are for water supply and train examination purposes, and the section being practically of a level character permits handling a good train; 2,150 tons gross, exclusive of the weight of the engine and tender, being handled on the east-bound trip with the mogul class, while the consolidation engine handled 2,400 tons in the same direction. On the west-bound journey 1,450 and 1,700 tons, respectively, were handled by these two classes without any assistance being given. The runs were all made during the day, as near as possible between 10 a.m. and 6 p.m. The average time was six hours, making the run at an average speed of 21 miles per hour.

The data obtained was as follows:—No. of engine, simple or compound; date of test, name of coal, destination, number of cars on train, gross weight of train in tons, average weight per loaded car, total engine miles, total train miles, total car miles, total ton miles, coal consumed in lbs. (exclusive of lighting up), coal consumed in lbs. per engine mile, coal consumed in lbs. per train mile, coal consumed in lbs. per car mile, coal consumed in lbs. per ton mile, coal consumed in lbs. per sq. ft. of grate area per train mile, coal consumed in lbs. per sq. ft. of grate area per hour, actual running time, total water evaporated in lbs., water evaporated in lbs. per lb. of coal, total weight of ashes in lbs., ashes per 100 lbs. of coal, actual running time, detentions, total hours engine under

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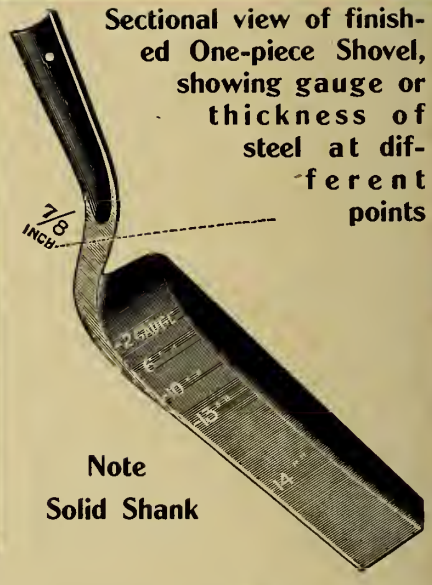

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steam, average speed in miles per hour, average boiler pressure, total number of stops, average temperature of air, average temperature of water, miles run with one ton of coal, wind, weather, rails, diameter of exhaust nozzle, weight on driving wheels, total weight of engine, type of boiler, type of valves, diameter of driving wheels, size of cylinders, grate area, number and diameter of flues, heating surface, type of engine, brick arch, size of stack, diameter inside, working pressure.

Each engine was submitted to the test for six consecutive days. All engines were given the same grade of coal and were handled by the same engineer, fireman, and train crew. Two of our mechanical experts were assigned to the work of noting all the details for compiling data previous to starting, while on the trip, and at the end of the journey, so that everything possible was done to obtain a practical and thorough test and accurate report of same. The whole report of these trials comprises such a voluminous mass of figures, that they would take up too much of your time, but touching upon some of the more important points, I may say that the coal consumed per ton mile on all the compounds showed over 20% decrease. The water evaporated per lb. of coal also gave a considerable increase in the percentage in comparison with the simple class engine. Better average speed was made with the compound engines, while a greater tonnage was handled. We found that the average coal consumed per ton mile was practically the same in the long narrow fire-box as in the wider fire-box class, from which it would appear that in the matter of fuel economy there was no practical advantage in the wide fire-box. A noticeable feature of these tests was, that notwithstanding they were made with different engines, but of the same type from those used in the tests made in former years, yet practically the same results were obtained, *i.e.*, the compound engines gave much superior results than the simple class engines. All the engines entered the trial in first-class condition, and the oil consumption, cost of running repairs, were practically the same while under the test.

The foregoing was read before a recent meeting of the Canadian Railway Club.

Prompt Handling of Competitive Freight.

In considering the prompt handling of competitive freight, we might first take package, or less than carload freight. Merchants shipping such freight should be advised that it will be received at the company's freight sheds up to a certain hour, say 5 p.m., or 17.00 k.; any such freight delivered after that hour being liable to be held over until the following day. Up to 17.00 k. such freight should be received and passed through the shed direct to the various cars being loaded for the several competitive points, a carload being made up for each station where possible; cars for such freight to be carefully selected as to fitness for fast service, and so placed on the house track that they can be moved from the freight shed first without disturbing other cars being worked. This L.C.L. competitive freight in carloads should be red carded with a card having a large white letter C printed on it, as quick information to all concerned of the contents of the car. Waybills should be stamped competitive, and enclosed in envelopes also so stamped, and cars started out in time for the most distant car to reach its destination and be placed at the freight shed for delivery at 7.00 k. of the next day, and shippers should be at once advised of its arrival. Thus on a run of say 100 to 200 miles from the loading point, a car containing L.C.L. competitive freight for the various towns along the run would be placed for delivery the morning following its receipt by the company. The same handling should be given freight for distant competitive points, and where full carloads cannot be made for beyond junction stations part cars should be loaded for junction points, where freight, if any, to come out could be removed, and competitive freight that is collected at such junction points could be promptly added and car go forward for distribution to the smaller stations along branch lines.

In the handling of carload competitive freight the same should be red carded and billed as above mentioned, switched out promptly at the close of business at 18.00 k. each day, and made up into, as far as possible, solid trains, the cars for furthest competitive points being placed to the rear of the train, and so on, to avoid switching en route, and trains started out on fast freight schedules under designating numbers, such numbers being used consecutively, and the movement of these fast freights reported from each train terminal point, the car numbers in such trains being wired under the letter C, and designated number of train, so that close check may be kept on the general movement of such traffic by the central office. Cars of competitive freight should be collected at junction points and added to such trains. The clerk in charge of fast freight records should be, preferably, one having experience in the operating department, conversant with schedules of trains, grades and other conditions of a local nature on different parts of the line.

In order to ensure schedule time with such freights, all terminal yards should be piped for air so that air brakes can be promptly tested, fully looked over, and train charged before the engine is coupled on. Engines on these trains should not be loaded as heavily as they now are, the engineer, having a greater amount of energy available than would be constantly in use, would thus be in a position to overtake unexpected delays that are sure to occur on long runs. Train dispatchers could thus count on such trains making regular performance, and could give such orders as would carry them over the section without requiring further interference or additional stops to re-arrange orders; each extra stop causes delay that must be regained at the expense of the engine, if from no other standpoint than the consumption of fuel. Therefore, if these trains were run 15% light under normal conditions, instead of 10% light as at present, and similar per cent. of reduction allowed for unfavorable conditions, it would be a step in the desired direction of maintaining our fast freight schedules.

Further, regular engine and train crews should be assigned to the runs, and engines kept in the best possible shape for the performance required, instead of being sent out on these trains haphazard, as at present. When selected engines and crews are used there is an individual pride in making the record required that is not obtained where any engine or any crew, whose turn out it may happen to be, is placed on the train.

Our greatest need at this time to secure more satisfactory handling of competitive freight is in our train performance, and to this end I would particularly recommend that regular engines, engine crews, and train crews be assigned to such service. There is nothing in our wage schedules which prevents such an arrangement, and if there is, it should be eliminated. Further, engines should be so distributed as to allow such trains to be handled through intact, and thus avoid the breaking up of trains at any terminal; where necessary to take care of accumulating competitive freight in long distance movement, a second section of such fast freight could be started.

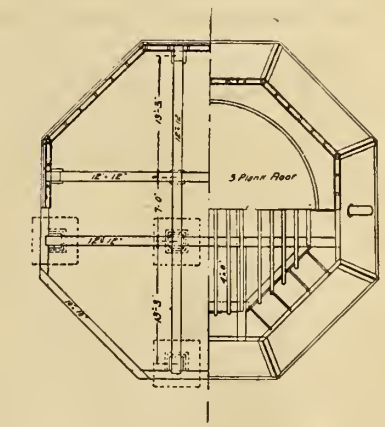
The hands of our freight traffic officials would be strengthened if fast freight schedules were absolutely maintained, and they would be relieved of any temptation to exaggerate in advising shippers of time that can be made by having to draw upon their imagination. They should be able to assert our adherence to our fast freight schedules in the same confident manner as our passenger officials rely upon our passenger schedules, and shippers could then be given these schedules with the same measure of confidence and assurance of actual performance as passengers are given time-tables.

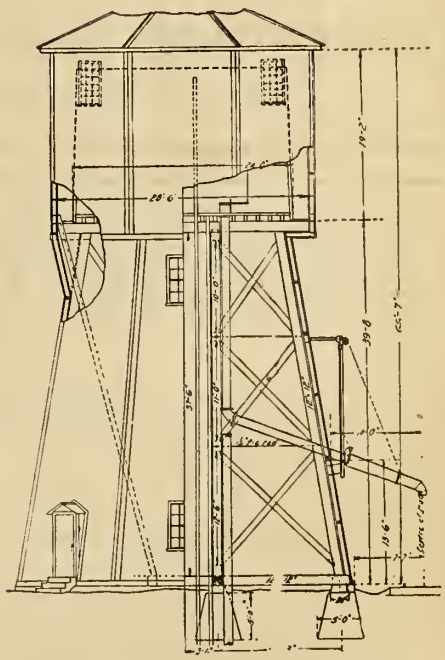
We should look the facts fairly in the face, which requires that we admit little or no actual observance of fast freight schedules in the past, and give our very serious consideration to the remedying of such performance by improving the conditions whereby our fast freight schedules may be at all times maintained.

[Extracted from paper read by R. R. Jamieson, General Superintendent Western Division C.P.R., Calgary, Alta., at the Officials' Conference at Field, B.C.)

C.P.R. Standard Water Tanks.

A committee of the Association of Railway Superintendents of Bridges and Buildings, in March, 1905, sent a circular to members in Canada and the northern portion of the U.S., asking for information as to the protection of water tanks from the action of frost. The report of the committee, which has re-





STANDARD HIGH TANK, C.P.R.

(*Continued on page 341.*)

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TORONTO, CANADA, JUNE, 1906.

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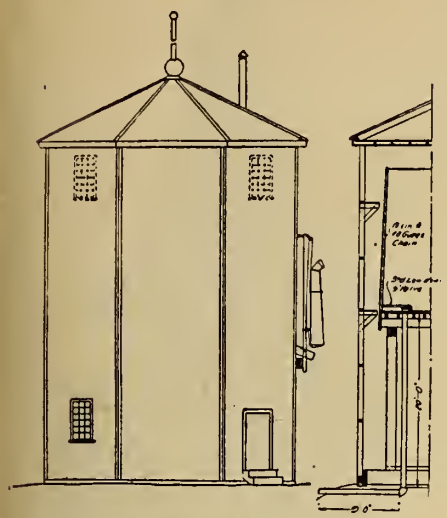
(Continued from page 337.)



STANDARD ENCLOSED TANK, C.P.R.

cently been published, contains the eight questions submitted, together with extracts from the replies received and illustrations of water tanks in use on the different lines. Following are the questions asked:—

1. Do you use any method to heat water in tanks in order to prevent freezing? If so, please describe the same.

2. Do you use any scheme other than an air space to protect tanks on top and bottom from the action of frost? If so, please give description.

3. Describe the best way in your opinion to obtain an air space on the top and bottom of locomotive water supply tanks.

4. Have you ever found it advisable to protect the side of the tank from the action of frost?

5. Do you advise connecting pipes from the pump or other source of supply so as to deliver into the discharge pipe between the tank and the standpipe and thereby keep the water in the discharge pipe in circulation in place of delivering the supply directly into the tank?

6. Where you use steam pumps do you turn the exhaust steam into the suction pipe?

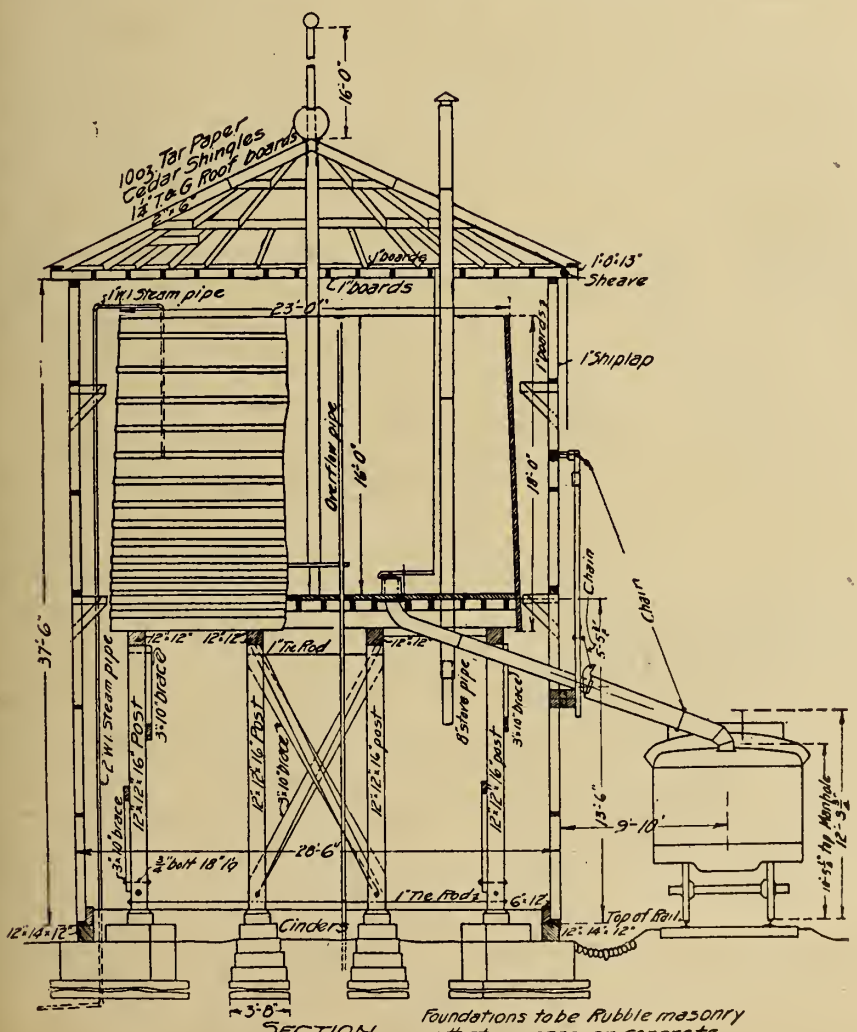
7. Where the water is delivered directly from the tank to the locomotive without the use of a standpipe, what precautions are used to protect the outlet valve and spout from freezing?

8. In tanks where float valves are used, what precautions are taken to keep the float and valve operating properly in winter and where do you place the valve which is operated by a float?

9. What do you consider the best scheme for protecting pipes between the ground and floor of a tank from the action of frost?

F. P. Gutelius, Engineer of Maintenance of Way, replied on behalf of the C.P.R. as follows:

1. We find it necessary to use heat to prevent the water from freezing in all the tanks on the system except those on the Pacific coast. Numerous methods are used:



STANDARD ENCLOSED TANK, CANADIAN PACIFIC RY.

(a) To extend the smoke pipe from the stove under the tank through the bottom of the tank so that the water in the tank is in direct contact with this pipe. In many cases the smoke pipe leads from the pump boiler, which is placed underneath the tank; in others a heating stove is used.

(b) When the pump is located sufficiently near the tank, the exhaust pipe from the pump is extended into the tank and the steam from the pump passes through this pipe, which is a coil, located as shown on the accompanying plan of an enclosed tank.

(c) The substructure of the tank in many instances is a 30 in. stone wall, which keeps the bottom of the tank warm without the use of the steam. In severe winters, however, this is not sufficient to prevent ice in the tank.

(d) Our new standard tank encloses the entire structure and is sufficiently large to give workmen access to the bands.

4. It is necessary in Canada generally to protect the side of the tank, and we think it can best be done as per our standard enclosed tank.

5. We lay our pipes leading to the standpipes at such depths that there is no necessity for making special effort to connect the supply pipe into the large pipe leading from the tank to the standpipe. If, however, any length of supply pipe can be saved, we connect the supply pipe to the large pipe leading to the standpipe in preference to extending it to the tank proper.

6. We do not turn the exhaust steam into the suction pipe. There might be a few cases on the system where this method of heating would be satisfactory, but as a general proposition it is not approved.

7. In our enclosed tank the outlet valve is located near the centre of the tank, so that the cold air entering the goose-neck is usually not sufficient to freeze up the valve.

8. The enclosed tank prevents the formation of ice in the tank, so that the float valve is not interfered with in the winter.

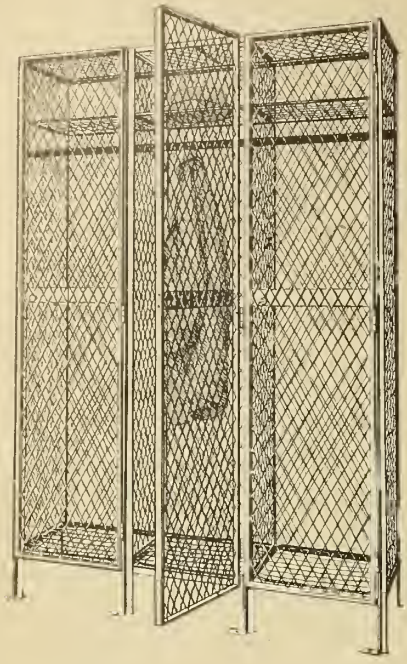
9. In the enclosed tank we do not require any protection for the pipes leading from the ground to the floor of the tank.

Our standard enclosed tank is giving first-class satisfaction except for the accumulation of ice on the track, caused by water being wasted when locomotives are being supplied.

G.T.R. Literary and Scientific Institutes.

If the arbitrary attitude sometimes assumed by organized labor in these latter days has taught anything it is the importance of a closer relationship between the employer and the employe To obtain the maximum results the man in charge of the shop must be familiar with his men. He should have his hand upon the pulse of his organization, and while making paramount the interests of the company he serves, should be broad-minded enough to see as well the interests of his men; to establish a bond of intimacy from man to man and from rank to rank, and inspire in each employe a love of enterprise, directing as far as possible the recreative as well as the business functions of those under him. The realization of this by employers at various workshops throughout the country has led to the evolution of many schemes to provide social entertainment for the workmen. A striking example of this is to be found at the locomotive repair shops of the G.T.R. at Port Huron, Mich., under the charge of Master Mechanic J. T. McGrath.

Mr. McGrath is a young, enterprising railway man, who has worked in various positions on the G.T.R., and has risen from the ranks. He assumed charge of the Port Huron works about five years ago, and shortly after his appointment a literary and



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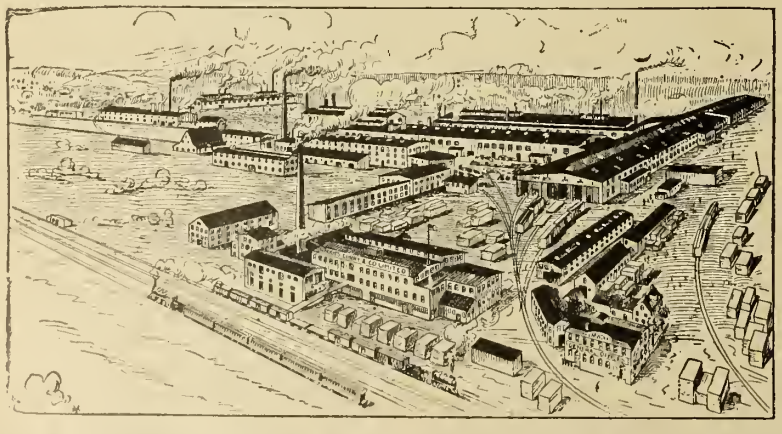

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scientific institute was formed, which, under well-regulated management, has grown to extraordinary proportions, branching out into many educational and recreative features, in which the employes of the shops, young and old, which number about 500, take an active part. This institution possesses the following advantages: A reading room open day and evening in which the leading mechanical journals and magazines are found. A library containing most of the modern works of well-known authors. Several bathrooms free to employes. A model room where sections of inspirators, lubricators, pop valves, and the various valves of Westinghouse air brake appliances are installed, and can be studied by the members. A course of lectures during the winter on literary and mechanical subjects, which are instructive and entertaining, and a grand concert which is given at the end of the season. In connection with the institute a camera club has also been formed, having about 60 members, and a well-equipped club room. A brass band has also been formed, consisting wholly of employes, 20 in number, which renders a short programme at all lectures. In addition there is a horticultural society having about 80 members.

But perhaps the most interesting feature of the institute is the bi-weekly classes held for the study of mechanical drawing and elementary and applied mechanics. These classes were organized principally for the benefit of the shop apprentices, although they are largely attended by the men. To stimulate competition each boy's papers are examined and rated and the result posted up in the room to show the progress each lad is making. The benefits of these classes are readily seen in the development of the apprentice and the facility with which he is able to read blue prints in the shop or work out mechanical ideas. At the close of the season a competition takes place in drawing and also in composition, on a subject relating to drawing, in which all the boys take part, there being five grades of apprentices, the 1st, 2nd, 3rd, 4th, and 5th-year boys. Prizes are given, and last year a special prize was given by Supt. of Motive Power W. D. Robb, which was competed for by apprentices all over the system. The interest is keen and the work turned out by the boys in many cases is admirable.

Of the various adjuncts of the institute none is more worthy of praise than the horticultural society. By its efforts the grounds around the Master Mechanics' office, which once grew nothing but weeds and wire grass, have been transformed into a beautifully designed flower garden laid out in divisions, each division being under the charge of one of the shop departments. Friendly rivalry is indulged in by the men to make the portion belonging to their shop look the best, and in Sept. professional florists are called upon to judge the efforts of the men, and prizes are awarded. In addition to this a successful flower show was held last Sept. for two days, open to all G.T.R. employes, and was patronized by about 2,500 paid admissions. In some classes of flowers as many as 30 entries were made. The exhibits were highly commended. Of course most of the flowers for this exhibition were grown by the employes at their homes.

The G.T.R. has institutions somewhat similar to the above at Montreal, Stratford and London, which, while furnishing considerable entertainment for the employes, have not branched out into so many features of recreation as the one at Port Huron. —M. H. Westbrook in Railway and Engineering Review.

H. J. Colvin, District Passenger Agent C.P.R., Boston, Mass., died there after a brief illness, May 24.

ELECTRIC RAILWAYS.

Dangerous Legislation in New Brunswick.

The St. John Ry. Co. is the owner of the street railway in the city of St. John, N.B. The operation of it proved disastrous for several companies before it became the property of the present company. The first company incorporated was the People's Street Ry. Co., in 1866. It failed. The second company formed was the St. John City Ry. Co., in 1887. It also failed. The next company was the Consolidated Electric Co., Ltd., incorporated in 1892. It also failed. The failure of the last company was a very bad one, indeed, the bondholders only receiving 10c. on the dollar on the amount of the bonds that were issued. The street railway property was foreclosed under the mortgage made to secure the bondholders, and its property, rights, franchises and immunities were sold by order of the Supreme Court in Equity. It was purchased by Sir Wm. C. Van Horne, Jas. Ross and other Montreal and St. John people, and a new corporation was formed called the St. John Ry. Co. The purchasers found that the only property of any value was the franchise. The old rails were taken up and sold for junk, and the cars in use were discarded. On the report of the engineer who was appointed it was found that it would require a very large sum to rebuild the railway, and put it in first-class condition. St. John is a difficult city to build a railway in, on account of the city being built on a rock which makes preparing the road-bed expensive. The purchasers proposed to the city to put in a first-class railway system, and the city agreed to the proposals made. The New Brunswick Legislature, with the consent of the city, incorporated the purchasers under the name of The St. John Ry. Co., the act being passed on April 21, 1894. The liability of the company for repairs to the streets was specifically defined by the Legislature. The section is as follows:—

"That where a single track is laid in the streets, or such streets shall be more than 60 ft. in width, the company shall maintain and keep in good order and complete repair all that portion of such streets between the rails and to a distance of 18 ins. outside of said rails."

It was thus clearly defined exactly what repairs the company should make to the streets. At the last session of the Legislature the city of St. John succeeded in having this section repealed, and imposing on the railway company the obligation of keeping in repair and maintaining the streets from curb to curb. The company strongly objected to this legislation; as not only was it agreed between the city and the company as to what repairs should be made on the streets, but it was specifically defined in an act passed by the Legislature. The repairs to the streets and removal of snow has been done by the city under a contract made with the company, the city receiving therefor $7,000 a year. This contract is still in force. The objections to the Act are:—

The Legislature, by this act, cancelled a contract which was embodied in a special act passed by the Legislature (50 Victoria, chap. 33), on the strength of which the present street railway was built. Such action by the Legislature will naturally be looked upon by investors and financial men as a repudiation, and will damage the credit of the city and Province in enterprises which may have to be financed in the future. If investors cannot rely on the plain language of an act of the Legislature it would be vain to expect them to risk their means in an effort to establish business enterprises in the Province. The Legislature by the same act authorized the street railway company to mortgage its property, franchises and immunities, and made the bonds issued under the authority of that act a charge on all the property, franchises and immunities of the company. Bondholders invested their money on the faith of the charter granted by the Legislature and on the strength of the act mortgaging the franchises and immunities of the company. It is wholly contrary to good faith that the bondholders and stockholders should be deprived of their rights without consideration or compensation.

The St. John Ry. Co. agreed with the city to build a street railway of a certain standard through certain streets, which contract it has performed to the very letter. After the lapse of 12 years the city goes to the Legislature and succeeds in getting the Legislature to repeal part of the contract, and succeeds in imposing on the company the obligation of keeping the streets in repair from curb to curb instead of for 18 ins. outside the rail. Take the other side of the case: Would the railway company have succeeded if it had gone to the Legislature and asked that its liability for repairs, as defined by the act, should be repealed, and that it should be exempt from making such repairs? It can hardly be conceived that any Legislature would for one moment have considered such an application. The natural answer would be—You have made a contract with the city which has been put in the shape of an act of the Legislature, and we cannot repeal such an act and thus relieve you from your contract.

This recent act puts on the company a liability at variance with the original act, which defines in specific terms what repairs shall be made to the streets by the railway company. Such legislation is illegal and unconstitutional and is a violation of the rights of property, and is unjust and not expedient in the public interest.

The act is unconstitutional in that in detriment to vested rights it assumes to deprive the railway company of important privileges and franchises without providing any compensation therefor.

No act has ever been passed in England or in any Province of Canada taking away an exemption or cancelling a contract without providing for an indemnity.

Canadians have invested large sums of money on the faith of street railway charters granted in foreign countries, including the Sao Paulo St. Ry. and Power Co., the Rio de Janeiro St. Ry. and Power Co., the Mexican Power Co., and the Havana St. Ry. The fact of a Canadian Legislature repealing charter rights, as in this case, might be cited as a precedent by members of these foreign legislatures, and if acted on would seriously affect Canadian investments.

T Rails in Toronto.

In connection with the decision to use T rails on certain extension lines to be built by the Toronto Ry., an official of the company has made the following statement: As used nowadays on street railway work the head of the rail lies flush with the pavement, with no projection as in a steam road-bed. The T rail has been standardized in Ottawa and Montreal, and is in use besides in Quebec, Halifax, Nova Scotia, London, and other Canadian cities. In the girder rail the open space where the wheel flange runs in the groove is 1½ inches from the head of the rail to the lip of the groove, and in the T rail, used in conjunction with especially shaped scoria blocks, this same distance is from 1⅛ to 1¼ in. The depth of the groove is the same in both, about 1⅛ inches. The new T rails were planned to weigh 86½ lbs., but it is said nothing over 70 lbs. can be delivered in time for use in the spring. We will lay the rails not in the centre of the city on the main lines, but outside on the extensions, so as to give everyone a chance to inspect and pass

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City Freight Agent
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Freight Agent
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WM. PHILLIPS
General Eastern Agent
52 King Street East
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Sailing from New York on Saturdays.

DOMINION LINE.
MONTREAL TO LIVERPOOL.
MONTREAL TO AVONMOUTH DOCKS, (Bristol and Antwerp.)

LEYLAND LINE.
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Sailing from Boston on Wednesdays.

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Look The Illinois Central map over and consult

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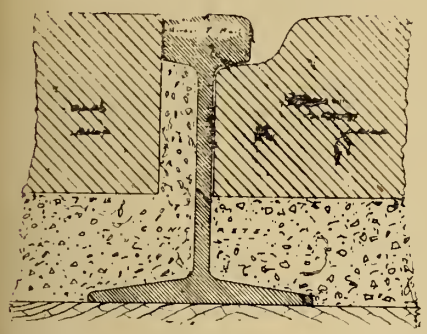
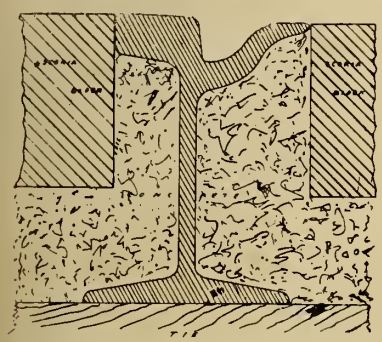
judgment on them. These rails possess no advantage in cost or other features primarily, but in the long run they cut down the expense of repair and track maintenance. They present no disadvantages to traffic that the girder rails do not possess, and from a company standpoint, and that of the passengers, they are a distinct advantage. We intend to use continuous joints in these rails, not welded, as the girders must be. This means the taking out of the ugly shearing in the asphalt or pavement necessary to provide for this weld. The T rail makes a steadier, stronger, more stable and easier kept in repair roadbed. The bearing surface on which the wheel runs



SECTION OF T RAIL

is exactly in the centre of the rail, while, with the girder, heavy trucks running on the lip of the groove cant it to the right, while the car wheel cants the head of the rail in the other direction, giving a continuous racking effect that not only damages the rail, but tends to tear up the roadbed and produce an uneven and dangerous running path for the street cars. Besides loosening the rails, the connections or bonds become loosened, and with the girder rails they have to be taken up and repaired immediately. The continuous joint used with the T rails will hold even when a spread occurs, so that the repair may be



SECTION OF GIRDER RAIL.

made at the time chosen and without so much damage to the roadbed. When the groove of the girder rail wears down a car is liable to leave the track at any time. For one thing the groove becomes filled up with silt, or snow and ice in winter, and the hold on the wheel flange is lessened. With the T rail, when the head of the rail, on which the wheel runs, wears down with use, the groove against the head formed by the scoria block is wide and deep enough to allow the flange to drop further. Ordinary street traffic has practically no effect whatever on scoria blocks, which will be set each side of the T rail. I know a piece of track in Quebec where the street traffic has in six years produced no appreciable wearing-away of the blocks that hold the rails on both sides. The passenger will ride more safely and more easily on a T rail than on a girder, and the rail is more easily drained of water or snow. It's altogether a better rail to use.

Projects, Construction and Betterments.

Hamilton Radial Electric Ry.—A regular car service was inaugurated on the extension from Burlington to Oakville, Ont., May 3. Oakville will be the eastern terminus of the line. The Toronto and York Radial Ry. has a line under construction from Port Credit to Oakville, which will effect a junction with the H.R.E.Ry. (Mar., pg. 153).

Montreal Street Ry.—A number of small extensions are being discussed with the City Council, and it is understood that the company is considering plans for the construction of a belt line encircling the entire island, a considerable portion of which would be done under the charter of the Montreal Park and Island Ry., which is owned by the M.S.Ry. The Dominion Parliament is being asked at the current session to extend the time for the completion of the M.P. and I. Ry. lines until 1911. (May, pg. 275).

Niagara, St. Catharines and Toronto Ry.—The extension under construction to Welland, Ont., will be about 12 miles in length. It will cross the canal by a swing bridge near the guard lock at Thorold. The extension is expected to be completed early in August. (May, pg. 275)

Windsor, Chatham and London Ry.—Notice has been served on the London, Ont., City Council, that application is being made to the various municipalities between Windsor and London, for a charter, and that an entrance is desired into the city.

Windsor, Essex and Lake Shore Rapid Ry.—The officers of the company for the current year are: President, W. L. Wilson, Port Huron, Mich.; Vice-President, T. E. Robinson, Detroit, Mich.; Second Vice-President, Dr. Jas. Brien, Essex, Ont.; Managing Director, P. Haseltine, Detroit; Secretary, J. W. Goodson, Detroit; Treasurer, W. C. Crawford, Tilbury, Ont. The other directors are: J. and W. T. Piggott, W. E. McKeough, W. R. Phillimore, M. Wilson, Chatham, Ont.; Hon. E. G. Stevenson, Detroit. We were recently advised that 30 miles of grading had been completed, and that four miles of track had been laid. Tracklaying was being proceeded with at the rate of half a mile a day. It is expected to complete 40 miles of line and to have cars in operation by Aug. 1, between Windsor and Leamington. The track is being laid with 80-lb. steel, part of which was purchased from the Algoma Steel Co.; the electrical equipment is being supplied by the Canadian Westinghouse Co., and the cars are also being built in Canada. The power house is being built at Kingsville, Ont. The contractors are the Keystone Construction Co., of Philadelphia, Pa., E. A. Tennis, the President, being in charge of the work. (May, pg. 277).

Winnipeg Electric Ry.—Requests having been made for a number of extensions, the Winnipeg City Council and representatives of the company are considering what can be done. Extensions to Assiniboine Park, along Sargent Ave., to Lincoln Park, and Elmwood, and the double tracking of the line on Portage Ave., are some of the works under consideration. (May, pg. 277).

Winnipeg, Selkirk and Lake Winnipeg Ry.—The poles and wires for the electrification of this line are being put up by the Winnipeg Electric Ry., and it is expected to have the line operated by electric power by Aug. 1. (Mar., pg. 153).

The street railway in St. Stephen, N.B., is owned and operated by the Calais and St. Stephen Street Ry., of Calais, Me., of which C. W. Young, St. Stephen, is Manager. The two towns are connected by a bridge across the St. Croix River.

Electric Railway Notes.

The Winnipeg Electric Ry. has purchased 10 acres of land at Kildonan, Man., adjoining the Winnipeg, Selkirk and Lake Winnipeg Ry., which it lately acquired.

The Camaguay Tramway Co. has been incorporated under the Dominion Companies' Act, with offices at Halifax, N.S., and a capital of $200,000, to construct tramways in Cuba. The provisional directors are R. V. Sinclair, A. F. May, W. H. Middleton, C. T. Moffatt, Ottawa.

The question of the appointment of an operating manager for the Windsor, Essex and Lake Shore Rapid Ry. has not been definitely decided, but it is not unlikely that P. Heseltine, of Detroit, Mich., who has been Managing Director since the formation of the company, will continue to have charge of its affairs.

D. J. McQuarrie has been appointed Local Manager, British Columbia Electric Ry. at New Westminster, succeeding F. R. Glover, resigned. He has been in the employ of the company for 13 years, starting as motorman, serving subsequently as freight clerk at New Westminster, and for the last two years as agent at Vancouver of the Vancouver-Westminster interurban line.

An open circular has been issued by the Toronto Ry. Co., owning the Toronto and York Radial Ry., giving the value of all buildings, plant and rolling stock of the two companies. The total value of the property amounts to $3,066,000, of which $502,000 is buildings, and permanent fixtures, and $1,502,000 for rolling stock. The value of the Toronto Ry. property is placed at $2,846,000, and of the Toronto and York Radial Ry. $220,000.

Electric Ry. Finance, Meetings, Etc.

British Columbia Electric Ry.—Gross earnings for Mar., $87,562 against $71,522 for Mar., 1905. Working expenses, $52,971; renewal funds, $8,500; approximate income from investments, $7,967; net income, $34,058; against $41,180 working expenses; $6,695 renewal funds; $2,750 approximate income from investments; $26,397 net income from investments. Aggregate gross earnings for nine months ended Mar. 31, $869,380; net earnings $387,468; against $688,509 gross, and $279,112 net, for the same period, 1904-05.

Halifax Electric Tramway.—Railway receipts for April, $12,221.44, against $10,515.93 for April, 1905. Total receipts, railway, electric lighting and gas, $27,333.89 against $26,541.29 for April, 1905.

London Street Ry.—The shareholders were called together at London, Ont., May 29, for the purpose of authorizing an increase of the capital stock to $750,000, and to authorize the issue of debentures to the amount of $750,000.

Montreal Street Ry.—Passenger earnings for April, $232,145.63; total earnings, $235,615.30, against $200,910.09 passenger, and $202,946.25 total for April, 1905. Operating expenses $136,662.80, fixed charges $41,113.68, surplus $57,838.82, against $125,350.49 operating expenses; $22,454.19 fixed charges, and $55,141.57 surplus for April, 1905. Net earnings for seven months ended April 30, $576,643.33; surplus, $356,904.74; against $453,138.37 net earnings, and $312,253.10 surplus for same period, 1904-05.

Niagara, St. Catharines and Toronto Ry.—Gross earnings for April, $16,609.58, against $14,575.99 for April, 1905.

Toronto Railway.—Car earnings for April, $231,034.28 against $201,317.40 for April, 1905

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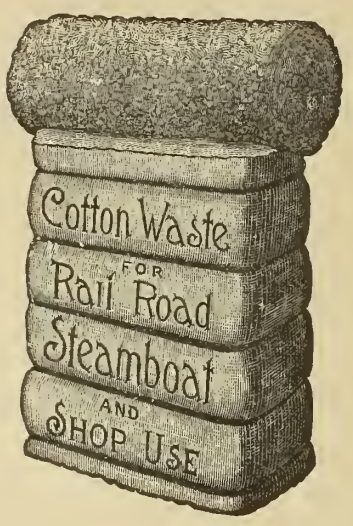

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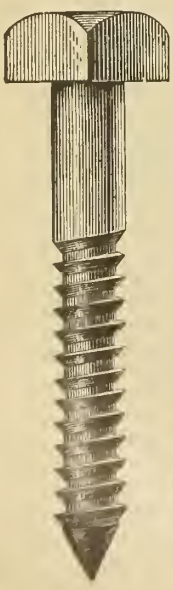

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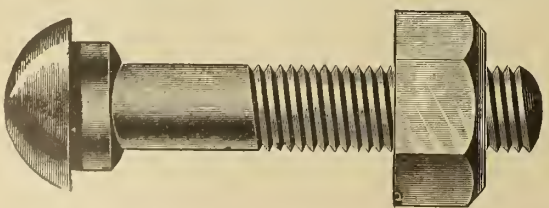

TORONTO — CANADA

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TORONTO	9.45 a.m., 5.20 p.m.
AND	
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TO	ARRIVE
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Canadian Passenger Agent, 69½ Yonge St.

TORONTO, ONTARIO

ELECTRIC RAILWAY STATISTICS FOR YEAR ENDED JUNE 30, 1905.

The following abbreviations are used in the names of railways:—E., electric; E.R., electric railway; E. S. R., electric street railway; Ry., railway; S. R., street railway. The minus mark (–) in the column for net earnings shows that there was a deficit in the operations of the line to the extent of the figures given. The numbers in brackets—thus (1)—after the name of a railway refers to notes below.

Name of Railway	Mil'ge	Gross Earnings	Net Earnings	Proportion of earnings to working expenses	Earnings per train mile	Operating per car mile	Freight Mileage	Car Mileage	Passengers Carried	Freight Carried
				p. c.	cts.	cts.				Tons
Berlin and Waterloo S. R. (1)	5.52	$ 25,775.78	$ 877.02	103	24	23	.....	109,200	590,953	.....
Brantford S. R. (5)	7.00	23,848.06	5.96	100	29	29	.....	80,400	305,007	.....
British Columbia E. R. (2)	51.75	516,725.07	180,869.06	154	22	14	48,578	2,253,872	10,352,451	17,852
Cape Breton E. Co	12.73	67,247.56	10,670.28	119	20	17	.....	322,450	1,297,952	.....
Cornwall S. R	6.00	20,862.08	481.47	102	11	10	12,684	189,214	282,521	35,051
Egerton Tramway Co. (3)	7.96	9,412.17	3,646.59	163	29	18	.....	32,160	204,932	.....
Galt, Preston and Hespeler S. R. (4)	16.25	68,562.43	15,498.23	129	46	36	12,400	148,640	536,463	44,014
Grand Valley Ry. (5)	20.00	27,742.16	4,126.01	116	11	09	.....	275,060	191,057	.....
Guelph Radial Ry	6.00	24,618.85	4,476.36	122	12	10	1,500	200,000	525,592	10,400
Halifax Electric Tramway	12.13	158,187.23	43,058.57	137	22	16	.....	711,587	3,540,310	.....
Hamilton and Dundas S. R. (6)	7.25	39,328.04	20,518.54	200	49	23	.....	79,406	372,697	1,420
Hamilton, Grimsby & Beamsv'e E. R.(6)	22.00	71,491.08	17,846.85	133	23	17	484	312,484	408,379	3,544
Hamilton Radial E. R. (6)	12.00	75,977.89	36,272.58	191	30	16	.....	246,675	98,491	3,350
Hamilton S. R. (6)	22.00	223,385.69	72,767.94	148	17	12	.....	1,259,685	5,516,870	.....
Hull E. Co	14.50	83,531.56	7,562.97	109	16	14	9,053	502,571	881,404	19,678
International Transit Co. (7)	3.30	33,065.64	3,923.09	113	14	12	.....	238,185	804,217	.....
Kingston, Portsm'th & Cataraq. E.R.(8)	7.50	.....	.....	.....	.....	.....	.....	.....	.....	.....
Levis County Ry	10.25	11,902.77	– 721.26	94	13	14	3,400	92,416	406,064	.....
London S. R	24.10	188,181.13	55,783.18	142	15	10	.....	1,278,487	4,812,530	.....
Montreal Park and Island Ry. (9)	37.99	175,354.17	30,651.00	121	21	18	3,923	809,021	2,028,820	13,412
Montreal S. R	124.42	2,625,899.36	1,005,685.60	162	20	12	.....	13,029,368	64,334,418	.....
Montreal Terminal Ry	18.34	82,296.85	14,000.38	120	14	12	12,379	576,459	934,030	54,970
Nelson Tramway Co. (10)	3.00	5,796.37	– 8,066.34	41	13	33	.....	42,160	110,540	.....
Niagara Falls Park and River Ry. (11)	11.85	149,718.76	82,820.71	223	40	18	26,100	373,501	1,323,212	130,500
Niagara, St. Catharines and Toronto Ry.	19.94	132,160.18	48,169.54	157	25	16	287,625	515,193	831,354	106,228
Niagara Falls, Wesley Park & CliftonRy.	4.50	33,910.97	19,805.61	240	22	09	.....	152,681	618,071	.....
Oshawa Ry	8.02	43,441.91	1,595.90	103	93	90	15,970	46,513	125,754	69,931
Ottawa E. R	22.87	406,097.00	176,187.07	176	16	09	.....	2,517,746	9,328,690	.....
Peterborough Radial Ry	6.00	17,645.73	1,877.08	112	10	09	.....	177,452	373,506	.....
Port Arthur S. R. (12)	9.00	39,278.94	8,743.68	128	22	17	.....	175,154	832,020	.....
Pt. Dal., St. Cath. and Thorold E. S. R.	8.17	19,138.43	7,382.34	162	18	11	.....	108,628	379,387	.....
Quebec Ry. Light and Power Co.:										
Citadel Division	17.22	201,311.94	67,067.43	149	17	11	.....	1,156,777	4,741,708	.....
Montmorency Division	25.00	95,251.82	38,392.69	167	46	27	.....	208,089	816,393	.....
Sandwich, Windsor & Amher'b'g Ry.(13)	25.07	107,783.04	43,004.29	165	20	12	.....	529,278	1,989,418	.....
Sarnia S. R. (14)	7.00	34,147.81	4,917.43	119	26	22	.....	132,466	607,633	.....
Sherbrooke S. R	7.00	25,975.00	10,625.00	165	10	06	.....	245,995	1,000,000	.....
Southwestern Traction Co.*	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
St. John Ry	13.50	117,432.06	27,943.83	131	19	14	.....	624,135	2,608,601	.....
St. Thomas S. R. (15)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Sydney and and Glace Bay Ry	18.80	87,118.38	22,157.05	134	31	23	.....	275,563	1,861,374	.....
Toronto Ry	48.65	2,572,829.88	1,067,750.47	170	19	12	.....	12,984,677	62,987,352	.....
Toronto and York Radial E. R. (16)	37.98	160,010.79	57,074.06	155	22	14	62,290	736,778	2,241,584	.....
Toronto Suburban Ry	9.06	31,678.99	2,691.61	109	17	16	.....	180,000	563,856	.....
Winnipeg S. R	28.00	485,752.88	221,283.74	183	26	14	.....	1,832,194	11,255,967	.....
Woodstock, Thames Val. & Inger. E. R.	11.50	22,864.27	6,797.17	145	22	15	.....	103,395	231,573	.....
Yarmouth S. R	2.00	12,384.99	2,710.49	128	13	10	.....	93,440	214,184	.....
	793.12	$ 9,357,435.77	$3,438,931.22	.....	.....	.....	496,386	45,959,101	203,467,317	510,350

Notes to Electric Ry. Statistics.

(1) The Berlin and Waterloo operates under lease the Berlin and Bridgeport E. R. 2.50 miles.

(2) The B.C. Electric Ry. operates lines in Victoria, Vancouver and New Westminster, but separate returns of the traffic are not given for each line.

(3) The Egerton Tramway Co. began operating its line April 1, 1905. The returns given are for three months only.

(4) The Galt, Preston and Hespeler operates under lease the Preston and Berlin E.R. 7.25 miles.

(5) The Grand Valley Ry. obtains its power from the Brantford S.R. These lines, as well as the Woodstock, Thames Valley and Ingersoll E.R., are controlled by the same interests.

(6) The Hamilton and Dundas E.R. rents its power; the Hamilton S.R. obtains its power from the Cataract Power, Light and Traction Co. These lines as well as the Hamilton Radial Ry., and the Hamilton, Grimsby and Beamsville Ry., are owned or controlled by the Hamilton Cataract, Light, Power and Traction Co.

(7) The International Transit Co. is one of the subsidiary companies of the Lake Superior Corporation, Sault Ste. Marie, Ont.

(8) The Kingston, Portsmouth and Cataraqui E.R. was not operated during the year.

(9) The Montreal Park and Island Ry. is owned by the Montreal Street Ry.

(10) The Nelson Tramway Co. is operated by the City Council under an agreement with the company. Its power is rented.

(11) The Niagara Falls, Wesley Park and Clifton E.R. rents its power from the Niagara, St. Catharines and Toronto Ry.

(12) The Port Arthur S.R. is owned and operated by the Town Council.

(13) The Sandwich, Windsor and Amherstburg E.R. is owned by the Detroit United Rys.

(14) The Sarnia S.R. rents its power.

(15) The St. Thomas S.R. is operated by the City Council, but no returns were made to the Department.

(16) The Toronto and York Radial E.R includes the Metropolitan Ry., the Toronto

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RAILWAY SPIKES

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VIA C.P.RY., AND NEWPORT, VT.

Lv.	Montreal	*9.00 a.m.,	*7.45	p.m.
Arr.	Lowell	*7.29 p.m.,	*6.37	a.m.
"	Worcester	†9.04 "	*9.19	"
"	Boston	*8.15 "	*7.30	"

VIA G.T.RY., AND WHITE RIVER JCT.

Lv.	Montreal	*9.01 a.m.,	*8.40	p.m.
Arr.	Lowell	*6.11 p.m.,	*7.17	a.m.
"	Worcester	†9.04 "	*9.19	"
"	Boston	*6.55 "	*8.05	"

VIA G.T.RY., WEST SHORE & ROTTERDAM

Lv.	Toronto		*4.10	p.m.
"	Niagara Falls		*6.30	"
"	Buffalo	*4.30 a.m.,	*7.20	"
Arr.	North Adams	*1.08 p.m.,	*5.11	a.m.
"	Worcester	*4.55 "	*9.59	"
"	Boston	*5.20 "	*9.50	"

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*Daily. †Except Sunday.

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OFFICES IN CANADA:

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Montreal, Que.	Ottawa, Ont.	Quebec, Que.
St. John, N.B.	Toronto, Ont.	Vancouver, B.C.
		Winnipeg, Man.

THOS. C. IRVING,
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2. Tremendous increase in city, town and country building.
3. Manufacturers establishing warehouses and factories.

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617 Main Street, WINNIPEG

and Mimico Ry., and the Toronto and Scarboro E.R. Freight is handled on the Metropolitan Division, but no record appears to have been kept. The T. & Y. R. E. R. is owned by the Toronto Ry. Co.

*The South-Western Traction Co.'s line is not in operation and the St. Thomas St. Ry. is operated by the City Council; but did not send in any retnrns for 1094-05.

G.T.R. Fast Freight Lines.—We are advised officially that the question of the consolidation of the various fast freight lines in which the G.T.R. is interested, has been considered, and the decision has been reached not to consolidate or abolish them. The lines in which the company is interested are the Commercial Express, operating over the Erie and its connections; the Lackawanna-Grand Trunk, operating over the Lackawanna; the Milwaukee and Michigan, over the New York Central lines; the Grand Trunk Despatch, over the West Shore; the Reading, over the Lehigh Valley, and the National Despatch, over the G.T.R. exclusively. The latter, Leonard's Railway News of May 12 stated, it was understood would alone be maintained with a separate and distinct organization. This report, the official, already quoted, states is at least premature.

The Minneapolis, St Paul and Sault Ste. Marie Ry. has removed its Winnipeg office from 445 Main St. to 222 Bannatyne Ave.

The Dominion Department of Marine has placed an order at Barrow-in-Furness, Eng., for the construction of a twin-screw ice-breaking steamer for service in the St. Lawrence gulf and river. The general dimensions are: length 172 ft., breadth 32 ft., depth 18 ft., and she is to have a speed of 14 knots an hour.

It was stated in the House of Commons May 4, that up to that date 56,989,600 acres of land within the limits of Manitoba, Saskatchewan and Alberta had been voted for railway purposes. Of this area there had been earned 42,303,450 acres, and the rights to 13,174,112 acres had lapsed. Of the lands earned 4,539,027 had been selected and patented, and 8,573,010 selected but not patented. This includes an area of 6,793,014 acres on account of the C.P.R. main line subsidy sold back to the Government in 1886. The Canadian Northern Ry. may yet earn about 6,400,000 acres by constructing its line from Erwood to Hudson Bay. The Canadian Northern has earned a total area of land which has not yet been patented of 2,109,475 acres; the Manitoba & Southeastern Ry., 680,320 acres; the Qu'Appelle, Long Lake & Saskatchewan Ry., 526,691 acres.

House of Commons Committees are at present receiving a good deal of information from railway companies in connection with the speed of railway trains at unprotected crossings in cities, towns and villages. This is being brought out in consequence of the bill introduced by E. A. Lancaster, M.P., to deprive the Railway Commission of authority to permit railways to run trains faster than 10 miles an hour at such places. The evidence of railway officials, backed up by the statement of the Minister of Railways, was that the greatest number of accidents occurred at crossings in the country and not in towns and villages. The special committee on the Lord's Day Act is also gathering a large amount of information from railway and steamboat men. The bill proposed among other things to prohibit all but through traffic being conducted on Sundays. Evidence was given by a number of transportation officers; representations were made by the Shipping Federation of Canada, and F. King presented the views of the Dominion Marine Association.

Halifax Electric Tramway Co.

The tenth annual report of the directors for the year 1905, presented at the annual meeting held in Halifax, N.S., recently, stated that the net earnings were $108,774.52, from which four quarterly dividends had been paid amounting to $74,250.00, and $33,139.24 expended on property. There had also been expended on property $6,973.00 received from sales of real estate and old machinery, making a total expenditure of $40,112.24 as follows:—Double tracking and paving, $24,-127.00; motor generator, $10,139.00; rolling stock, $3,658.00; meters, transformers, etc., $2,188.24. Owing to the unusually severe winter of 1904-1905, the heavy expenses incurred in removing snow and loss in passenger receipts consequent on part of the track being blocked entirely from traffic for several weeks, the net earnings fell below these of the previous year $28,748.72; yet, in comparison with 1903, the percentage of operating expenses to income was 2.73% below, and the net earnings, $12,566.30 above that year. Further outlays in double tracking and additions to rolling stock are contemplated for the present year, which the directors believe will materially add to the convenience of the public.

Appended to the report was a table of statistics and comparisons containing the following:—Percentage of operating expenses to income, 62.55%, against 55.87%; passengers carried, 3,404,747, against 3,540,310; car mileage, 700,004, against 711,578; incandescent lamps, 39,433, against 36,004; arc lamps, 357, against 362; stationary motors, 768 h.p., against 675 h.p., all the comparisons being with 1904.

RECEIPTS

Passenger receipts	$ 151,386.73
Light and power earnings	153,505.44
Gas earnings	64,741.80
Sundry earnings	734.89
	$ 370,368.86

EXPENDITURE

Operating expenses	$ 231,594.34
Coupons	30,000.00
Net earnings	108,774.52
	$ 370,368.86

ASSETS

Property	$2,152,798.34
Accounts receivable	37,553.86
Supplies	13,773.05
Suspense accounts	12,097.16
Cash on hand	26,132.60
Construction in process	6,395.64
	$2,248,750.65

LIABILITIES

Capital stock	$1,350,000.00
5 per cent bonds	600,000.00
Accounts payable	47,018.28
Notes payable	20,000.00
Bond interest	15,000.00
Dividend due Jan. 2, 1906	20,250.00
Tickets outstanding	1,327.40
Surplus account	195,154.97
	$2,248,750.65

The Ontario Government has issued an order which came into effect May 1, increasing the dues on railway ties cut upon licensed land of the Crown from 2c. to 5c. per tie.

The Rutland Rd., in connection with the Boston and Maine Rd., has inaugurated a through sleeping and parlor car service, and through coaches between Montreal and Boston.

The Prince Edward Island Legislature at its recent session passed an act respecting telephone communications and one incorporating the Charlottetown Electric Transit and Power Co., Ltd.

D. McKeith of Glencoe, Ont., who was a passenger on the Virginian, sailing from Montreal May 10, has in his possession the ticket issued to him in 1838, when he came across the Atlantic Ocean with his parents, in the Allan packet Three Bells.

Montreal's Latest Grain Elevator

The Montreal Warehousing Co.'s new grain elevator recently completed at Windmill Point basin, Montreal, is a steel and concrete structure and presents some unusual conditions in elevator construction. The instructions given to the designers were, that down to the smallest detail, the building was to be absolutely fireproof; this idea has been rigidly adhered to all through, the result being, it is claimed, that there is no other elevator on the continent equal to it in fireproof qualities. Another novelty is that the bins which contain the grain are rectangular in shape instead of cylindrical, the particular construction and strengthening of them being covered by patent. The bins, of which there are 144, vary in capacity from 2,750 up to 11,000 bush. The motive power throughout is electricity, with a total horse power of 1,408, distributed over 19 motors. A high voltage current is delivered to the transformer house, where it is converted into 500 volts, and delivered to the switchboard in a room located in the first story of the elevator. There are 10 elevator legs, five of which are used for receiving, and all can be used for delivering. There is also a marine leg for elevating grain from vessels in the Lachine Canal basin alongside, with a capacity of 15,000 bushels an hour, while on the river side in Windmill Point basin there are 19 loading spouts for delivery to ocean steamers or barges. There are also two loading spouts on the canal in addition, for barges. For delivery to ocean vessels there are two carriers made of heavy rubber belting, 38 ins. wide, and with a total length on the harbor of 1,170 ft., from which the grain can be fed to any of the 19 loading spouts above mentioned. The house has a capacity of 10 loaded cars, five of which can be unloaded at one time, and it it expected that as soon as the machinery gets into full running order that from 125 to 150 cars of 1,000 bush. capacity each can be unloaded in a day of 10 hours. The dimensions of the elevator are: length, 238 ft.; breadth, 84 ft.; extreme height, 185 ft. The total capacity is 1,080,000 bush. The whole plant has been constructed from plans and specifications of John S. Metcalf Co., of Chicago, who have also supervised the construction. Mr. Metcalf, the senior partner, is a Canadian, having been born near Sherbrooke, Que., who has spent over 30 years in the U.S. He has been building elevators since 1873, and his work can be found scattered all over Canada and the U.S., as well as in other countries. He was the first to put up a modern elevator in England, having built the 1,500,000 bush. house at Manchester in 1898, and is now working at a second house of like capacity.

The elevator was officially opened on April 28 in the presence of the Minister of Marine and a number of Montreal business men, who were afterwards entertained at luncheon on one of the top floors.

Grain Elevator Notes.

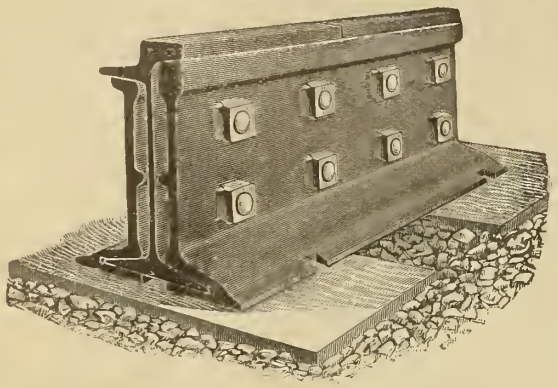
The Northern Elevator Co.'s elevator at Emerson, Man., and its contents, 14,000 bush. of grain, were burned May 20. The loss is estimated at $20,000.

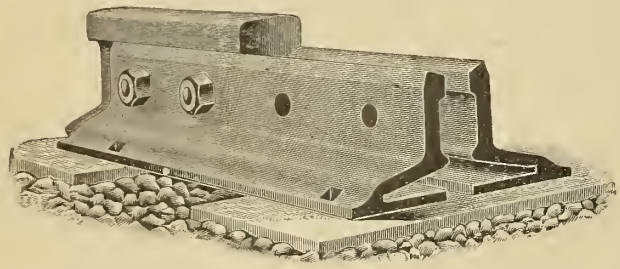
The Western Elevator Co. is arranging for the purchase of a site on the Kaministikwia River, Fort William, Ont., on which it is proposed to erect a 650,000 bush. elevator.

The 550,000 bush. elevator at Kingston, Ont., and the other property of the Frontenac Cereal Co., are being offered for sale by tender under order of the courts, for the benefit of creditors.

The Ogilvie Milling Co. informed the Montreal City Council, May 1, that if the Montreal and Southern Counties Ry. were permitted to lay tracks for its electric railway along Mill St., the company would be compelled to

Railroad Essentials.





The day has passed when men of finance are willing to place their money into bad material in railroad construction only to be compelled to replace it by renewals or reconstruction after very little use. Many of the best and most successful steam and electric railroads use the rail joints of the Continuous patent type for standard track work, insulated joints, step joints, and electric bonding joints for the reason that experience has proven it to be the best appliance of its kind ever put upon the market, as evidenced by the fact that it is used in all parts of the world on over 20,000 miles of track.

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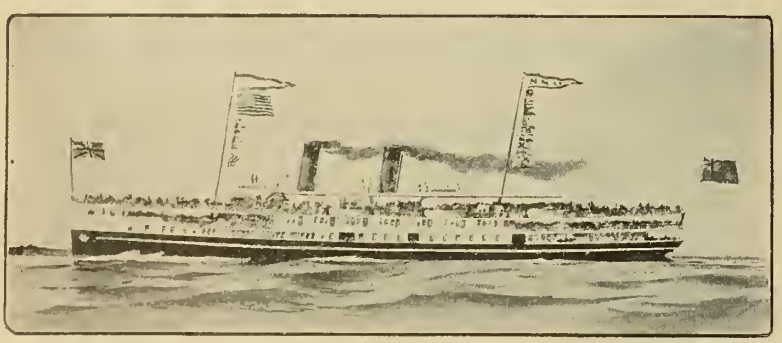
(Niagara River Line) LIMITED



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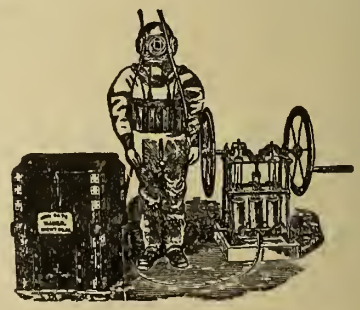

JOHN DATE
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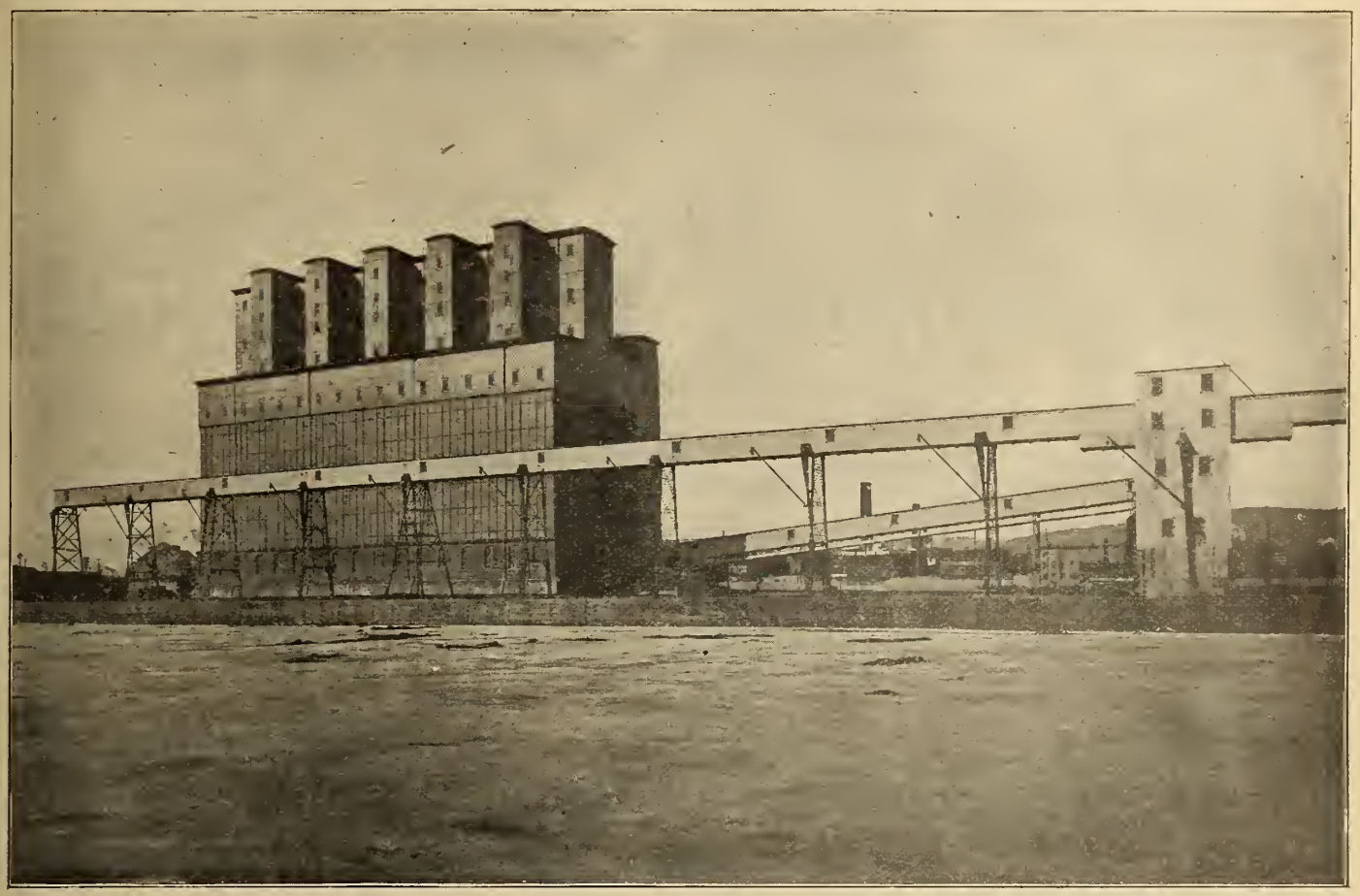
abandon the project to erect a new flour mill and a 2,000,000 bush. elevator on the site it had recently acquired on that street.

It was stated before the Senate Railway Committee at Ottawa, that the promoters of the Vancouver, Westminster and Yukon Ry. desired to construct a railway from Vancouver, B.C., to Edmonton, Alta., with the object of carrying grain from Alberta to Vancouver for export, and to promote the building of elevators at the terminal city.

The Alberta Pacific Elevator Co. has been incorporated by the Alberta Legislature. It is proposed to erect a 500,000 bush. elevator at Calgary, Alta.; and 15 or 20 primary elevators of 30,000 bush. capacity each, at different points in the province during the summer. It is also proposed to start early construction of an elevator at Vancouver, B.C., for export grain to China and Japan. L. G. Strong, Calgary, is manager of the company.

In connection with the proposal to establish a grain clearing house at the head of the lakes, we have been informed that the system has not been adopted by the railways operating the terminal elevators at Port Arthur and Fort William, Ont. The officers in charge at these points, on behalf of the C.P.R. and the Canadian Northern Ry., are entirely in favor of the proposal, but have not, as yet, formulated a practical working plan, but it is understood that a grain clearing house will be in operation in the near future. The proposal has been endorsed by individuals and commercial bodies wherever discussed, and the grain carriers on the lakes are strongly in favor of its institution.

Two actions have been commenced in the Quebec Superior Courts at Montreal in connection with the Great Northern Elevator at Quebec by the Royal Trust Co. The amount of the claim is $56,500, and the defendants are the Great Northern Elevator Co. and the Great Northern Ry. The elevator, it appears, was originally built by the G.N. Ry., and sold to the elevator company, which executed a mortgage to the Royal Trust Co., through the agency of which the company's bonds were placed on the market. On the execution of the trust deed the elevator company leased the structure to the G.N. Ry. for 20 years, at a rental payable to the trust company of an amount sufficient to meet the interest charges, and to provide a sinking fund for the repayment of the bonds at maturity. The bonds were also guaranteed by the G.N. Ry. It is alleged that the rental has not been paid, and that the elevator company has not complied with the conditions. Both the elevator company and the G.N. Ry. deny their liability; and the railway company further contends that it had no legal power to guarantee the repayment of the bonds.



THE MONTREAL WAREHOUSE CO.'S GRAIN ELEVATOR, WINDMILL POINT, MONTREAL. SEE PG. 349.

A clause in the bill respecting certificates to masters and mates caused some discussion in the House of Commons recently. The clause which was subsequently substantially adopted, provides that Canadian certificates shall only be given to British subjects, and E. A. Lancaster, the sponsor of the bill, stated that the United States regulations required the taking of the oath of allegiance before a certificate could be obtained there. F. King, Kingston, Secretary, and A. A. Wright, Toronto, a member of the executive committee of the Dominion Marine Association, appeared before the committee in opposition, stating that no Canadian citizens capable of sailing vessels on the great lakes were out of employment, and further that the U.S. might retaliate against a large number of Canadians now employed upon U.S. vessels.

River and Lake Officers for 1906

Following are additional appointments of masters and engineers for river and lake vessels to those given in our last issue. The name of the vessel appears in the first column, the master in the second, and the engineer in the third:

C.P.R. UPPER LAKE STEAMERS.

Alberta	L. Pyette	A. Cameron.
Athabasca	G. McDougall	W. Lockerbie.
Manitoba	E. B. Anderson	W. Lewis.

HALLIDAY BROS., QUEBEC.

Aranmore	E. Couillard	J. LePage.
King Edward	T. Simpson	A. Sampson.

W. J. PULLING, WINDSOR, ONT.

Juno	A. McInnis	A. Kerby.
Sligo (schooner)	J. McPherson	

MUSKOKA LAKES NAVIGATION AND HOTEL CO.

Ahmic	W. H. Giles	
Charlie M.	J. Bibby	G. Castle.
Islander	W. H. Elder	J. S. Russell.
Kenozha	E. E. Jackson	
Medora	J. Henry	H. Baillie.
Muskoka	R. Hansen	A. Lewis.
Nipissing	E. McAlpine	N. A. Johnson
Oriole	A. T. Corbett	F. Battelle.
Sagamo	G. Bailey	A. McArthur.

The C.P.R. placed its SS. Amur at the disposal of merchants of Victoria and Vancouver, B.C., for the carriage of supplies to San Francisco, Cal., after that city had been destroyed by earthquake and fire.

The Superintendent of Insurance for the Dominion has issued new licenses to the following companies, upon surrender of their old ones: Western Assurance Co., Toronto; Chief Agent, J. J. Kenny, Toronto; license to transact fire, inland marine and inland transportation insurance. Alliance Assurance Co., Montreal; Chief Agent, T. D. Belfield, Montreal; license to transact fire and inland marine insurance.

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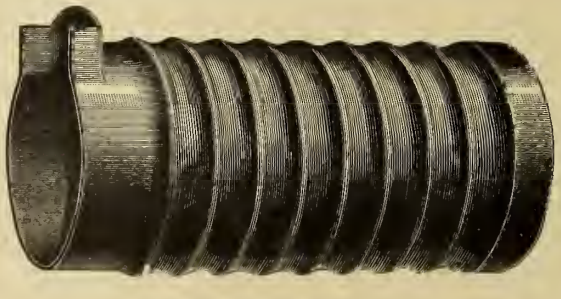

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MARINE DEPARTMENT

LIST OF STEAM VESSELS REGISTERED IN CANADA FROM APRIL 15 TO MAY 15.

Name.	No.	Where and When Built.	Engines, etc.	Length	B'dth.	Depth.	Gross tons.	Reg. tons.	Home Port.	Owners.
				ft.	ft.	ft.				
Atlintos	121,731	Vancouver, B.C., 1906	Screw 3 N.H.P	36.1	9.0	4.5	17	12	Vancouver, B.C.	J. F. Deeks, Vancouver, B.C.
Aurora	121,860	Lunenburg, N.S., 1906	" 4 " "	36.2	10.8	5.0	10	10	Lunenburg, N.S.	J. T. Stewart, West Point, P.E.I.
Ayacanora	121,736	Vancouver, B.C., 1906	" 2 "	30.8	6.5	2.3	3	2	Vancouver, B.C.	A. S. White, Vancouver, B.C.
Brant	116,875	Port Robinson, Ont., 1906.	" 8 "	55.0	15.3	7.8	49	33	St. Catharines, Ont.	W. E. Phin, Welland, Ont.
Dawn	121,833	St. John, N.B., 1902	" 1 "	26.0	7.0	3.0	5	3	St. John, N.B.	S. P. Gerow, St. John, N.B.
George Crete	121,821	Grande Piles, 1905	Paddle 2 "	54.0	10.9	2.6	17	10	Montreal, Que.	G. Crete, Grande Piles, Que.
Gertrude	121,737	Vancouver, B.C., 1906	Screw 1 "	25.9	6.6	2.5	3	2	Vancouver, B.C.	J. E. Macrae, Vancouver, B.C.
G. Campbell	116,813	Detroit, Mich., 1871	" — "	206.4	32.5	12.3	1158	729	Cobourg, Ont.	G. Plunkett, et al., Cobourg, Ont.
Grande Piles	121,823	Grande Piles, Que., 1904	Paddle 2 "	59.4	11.7	2.2	18	9	Montreal, Que.	A. Mongraw, St. Sévérin, Que.
Gypsy	121,733	Vancouver, B.C., 1905	Screw ½ "	18.0	5.0	2.2	1	4–5	Vancouver, B.C.	W. T. Taffe, Vancouver, B.C.
J. A. Paul	116,809	Sorel, Que., 1906	" 3 "	71.1	14.2	5.6	49	33	Sorel, Que.	J. A. Paul, Sorel, Que.
Hazel	121,735	Vancouver, B.C., 1906	" 2 "	29.0	5.3	2.5	2	2	Vancouver, B.C.	E. S. Wilbrand, Vancouver, B.C.
Helen S	121,914	Kenora, Ont., 1906	" 1 "	38.0	8.0	4.0	13	9	Kenora, Ont.	J. W. Short, Kenora, Ont.
Kate	117,034	Bay Mills, Mich., 1899	" 8 "	63.0	16.0	6.9	63	30	Sault Ste. Marie, Ont.	J. Gauley, Sault Ste. Marie, Ont.
Kathleen	121,912	Kenora, Ont., 1906	" 3 "	60.0	13.6	4.0	51	35	Kenora, Ont.	A. Robertson, Kenora, Ont.
Kegabonga	121,789	Kegabonga, Que., 1899	" 2 "	36.0	16.0	3.3	14	9	Ottawa, Ont.	Gilmour & Hughson, Ltd., Hull, Que.
Lorne Hale	117,035	Simcoe, Ont., 1893	Paddle 2 "	37.3	10.1	3.8	22	14	Sault Ste. Marie, Ont	J. J McFadden, Sault Ste. Marie, Ont.
Maset	121,913	Detroit, Mich., 1900	Screw 2 "	36.0	8.0	3.0	8	7	Kenora, Ont.	Geo. Drewry, Kenora, Ont.
Pierreville	116,810	Pierreville, Que., 1906	" 8 "	100.0	24.0	—	121	76	Sorel, Que.	A. A. Moudon, Pierreville, Que.
Pursuit	121,738	Vancouver, B.C., 1905	" 1 "	32.0	10.0	3.3	12	8	Vancouver, B.C.	W. Main, Vancouver, B.C.
Reina	121,790	Hull, Que., 1905	" 2 "	30.4	6.8	3.6	4	3	Ottawa, Ont.	F. St. Louis, Hull, Que.
Sea Foam	121,739	Vancouver, B.C., 1906	" 6 "	41.6	10.5	5.2	17	12	Vancouver, B.C.	W. Simpson, Vancouver, B.C.
Sea Gull	121,848	Callander, Ont., 1906	" 30 "	82.6	18.7	6.4	150	73	Toronto, Ont.	J. B. Smith & Sons (Ltd.), Toronto, Ont.
Sémillante	121,666	Quebec, Que., 1905	" — "	40.0	8.3	4.0	9	8	Quebec, Que.	S. Gaudreau, Quebec, Que.

LIST OF SAILING VESSELS AND BARGES REGISTERED IN CANADA FROM APRIL 15 TO MAY 15.

Name.	No.	Where and When Built.	Rig.	Length	B'dth.	Depth.	Gross tons.	Reg. tons.	Home Port.	Owners.
Adoriain	121,876	Plymouth, N.S., 1906	Sloop	36.0	12.0	7.0	15	15	Yarmouth, N.S.	A. G. LeBlanc, Plymouth, N.S.
Alma L. Gertie	85,404	Grindstone, Mag. Is., 1906.	Schr.	63.3	18.9	7.6	43	43	Magdalen Is., Que.	A. Arseneau, Grindstone, Mag. Is., Que.
Capital	621,787	Ottawa, Ont., 1905	Barge	79.9	24.0	6.0	178	178	Ottawa, Ont.	J. O'Leary, Ottawa, Ont.
Chief	116,876	Port Robinson, Ont., 1903.	Dr'ge	80.9	30.9	7.9	325	269	St. Catharines, Ont.	W. E. Phin, Welland, Ont.
Douglas Adams	116,540	Lunenburg, N.S., 1905	Schr.	93.8	25.0	10.2	110	99	Lunenberg, N.S.	H. W. Adams, Lunenburg, N.S.
Dredge No. 3	117,113	Bay City, Mich., 1902	Dr'ge	76.0	24.0	....	206	136	Windsor, Ont.	Stewart & Tassie, Ottawa, Ont.
Dredge No. 3	121,847	Buffalo, N.Y., 1872	"	75.2	24.0	6.0	108	108	Toronto, Ont.	Erie & Ontario Dredg. Co., Welland, Ont.
EdwardsBr.No.3	117,033	S. Ste. Marie, Mich., 1902	"	63.0	22.0	5.4	202	202	S. Ste. Marie, Ont.	J. Stevenson, Sault Ste. Marie, Ont.
Florence C	121,877	Pinkney's Pt., N.S., 1906.	Sloop	35.6	12.0	7.0	15	15	Yarmouth, N.S.	J. A. Surette, Pinkney's Point, N.S.
Helen Vair	116,917	Liverpool, N.S., 1906	Schr.	83.0	23.0	8.9	79	79	Liverpool, N.S.	G. A. Buffett, Grand Bank, Nfld.
Hiawatha	121,857	Lunenburg, N.S., 1906	"	95.2	25.0	10.0	116	99	Lunenburg, N.S.	B. Cook, et al, Rose Bay, N.S.
G. A. Grier	121,785	Hull, Que., 1906	Barge	121.8	24.1	8.1	219	196	Ottawa, Ont.	Ottawa Transportation Co., Ottawa, Ont.
Gilly No. 4	117,156	N. Westminster, B.C., 1905	"	68.0	25.0	5.8	99	99	N.WestminsterB.C.	J. R. & W. R. Gilly, N. Westminster, B.C.
J. A. McLean	121,858	La Have, N.S., 1906	Schr.	80.9	22.6	8.7	80	80	Lunenburg, N.S.	C. A. Anderson, Lunenburg, N.S.
J. M. Plummer	117,148	Boothbay, Me., 1883	"	87.5	22.5	8.0	83	83	Halifax, N.S.	C. E. Bennett, Alberton, P.E.I.
John Crete	121,822	Grande Piles, Que., 1901	Sloop	62.4	9.4	1.8	12	8	Montreal, Que.	G. Crete, Grande Piles, Que.
Loring B.Haskell	121,813	Essex, U.S.A., 1884	Schr.	82.0	22.8	8.8	87	70	Digby, N.S.	W. S. Troop, Digby, N.S.
M. A. Nickerson	121,902	Shelburne, N.S., 1906	"	59.0	17.5	7.3	37	37	Barrington, N.S.	W. H. Kenny, Clark's Harbor, N.S.
Marina	121,862	Lunenburg, N.S., 1906	"	77.6	22.5	8.8	78	78	Lunenburg, N.S.	W. Schmeisser, La Have, N.S.
M. F. Attwood	121,903	Clark's Harbor, N.S. 1906	Sloop	34.0	13.0	6.0	15	15	Barrington, N.S.	W. H. Kenny, Clark's Harbor, N.S.
Mary W. S	121,859	La Have, N.S., 1906	Schr.	74.3	22.5	8.8	74	74	Lunenburg, N.S.	S. Parks, La Have, N.S.
Medina A	121,861	Lunenburg, N.S., 1906	"	74.2	22.4	8.7	74	74	" "	S. Corkum, La Have, N.S.
Minnie Harris	116,918	Liverpool, N.S., 1906	"	86.0	25.0	9.6	104	91	Liverpool, N.S.	S. Harris, Grand Bank, Nfld.
No. 2	121,738	Hull, Que., 1906	Barge	55.4	18.5	4.8	40	40	Ottawa, Ont.	J. O'Leary, Ottawa, Ont.
Packet	121,891	Shelburne, N.S., 1906	Schr.	75.0	21.0	8.2	65	65	Shelburne, N.S.	A. Morris, Three Arms, Nfld.
Roland	116,808	Sorel, Que., 1906	Barge	103.2	23.0	7.0	125	121	Sorel, Que.	C. Lafreniere, Pierreville, Que.
Sea Bird	116,939	Massett, B.C., 1906	Schr.	36.0	12.0	7.0	18	15	Victoria, B.C.	A. Brown, Massett, B.C.
Togo	121,773	Winnipeg, Man., 1902	Barge	72.0	20.0	4.0	58	58	Winnipeg, Man.	Pioneer Nav. and Land Co., Winnipeg, Man.
Toronto	121,875	Clark's Harbor, N.S., 1906.	Sloop	36.0	12.0	6.0	13	13	Yarmouth, N.S.	B. C. Smith, Port La Tour, N.S.
W. M. Dobell	121,786	Hull, Que., 1906	Barge	121.8	24.1	8.1	219	219	Ottawa, Ont.	Ottawa Transportation Co., Ottawa, Ont.
Z. Gill	116,807	Pierreville, Que., 1905-06	Sloop	104.2	23.0	7.6	130	126	Sorel, Que.	W. Gill, Pierreville, Que.

The C.P.R. Atlantic Steamships.

The Empress of Britain, the new C.P.R. trans-Atlantic steamer, reached Quebec on her initial trip from Liverpool at 10 p.m., May 12, her actual steaming time being 6d. 16h. 30m., and the time from land to land, 3d. 18h. Although she cast off from the Liverpool landing stage on Saturday evening, she lay at anchor in the Mersey until Sunday morning, as owing to the fog the pilot would not risk taking her over the bar at low tide. A start was made at 5.30 on the morning of May 6, and a pleasant voyage followed. Some time was lost owing to having to slow down for heated bearings, and for nine hours off Cape Race on account of fog, as well as a stoppage of one hour at this point. The distances logged each day were: May 6, to noon, 110 miles; May 7, 417 miles; May 8, 433 miles; May 9, 452 miles; May 10, 369 miles; May 11, 410 miles; May 12, 443 miles. On May 10 there was a heavy gale which accounted for the lesser mileage run. The steamer brought out 157 saloon, 437 second class, and 809 third-class passengers. The saloon passengers included Sir T. G. Shaughnessy, President C.P.R.; Lady and Miss Shaughnessy; R. B. Angus, director C.P.R., and Hon. L. J. Forget, President Montreal St. Ry.

There was a large gathering at Quebec to meet the steamer, among the principal C.P.R. officials being: D. McNicoll, Vice-President; A. Piers, Manager Steamship Lines; J. W. Leonard, Assistant General Manager Eastern Lines; R. Kerr, Passenger Traffic Manager; C. E. E. Ussher, General Passenger Agent Eastern Lines and H. Beattie, Toronto. Other officials of the company, including G. McL. Brown, General Passenger Agent Atlantic Service, were on board, having met the steamer with the quarantine officers at Father Point.

The Empress of Britain is 570 ft. long, and has a breadth of 65½ ft. Her height from the foundation of the engines to the top railing is 169 ft. Her size may be estimated when the displacement of 20,000 tons is considered, while her registered tonnage is 14,500 tons. Her indicated horse power is 18,000, and her estimated possible speed, which has not yet been thoroughly ascertained, is over 20 knots an hour. She has accommodation for 350 first, 350 second and 1,000 third-class passengers, 375 crew. Her daily coal consumption is 300 tons. She is the largest vessel which has ever been placed on the St. Lawrence route.

In an interview at Quebec, Sir Thos. Shaughnessy said the two new steamers, the Empress of Britain and the Empress of Ireland, would determine the exact extent to which the C.P.R. would develop ocean lines. It was the intention of the company to add two more steamers to the Atlantic

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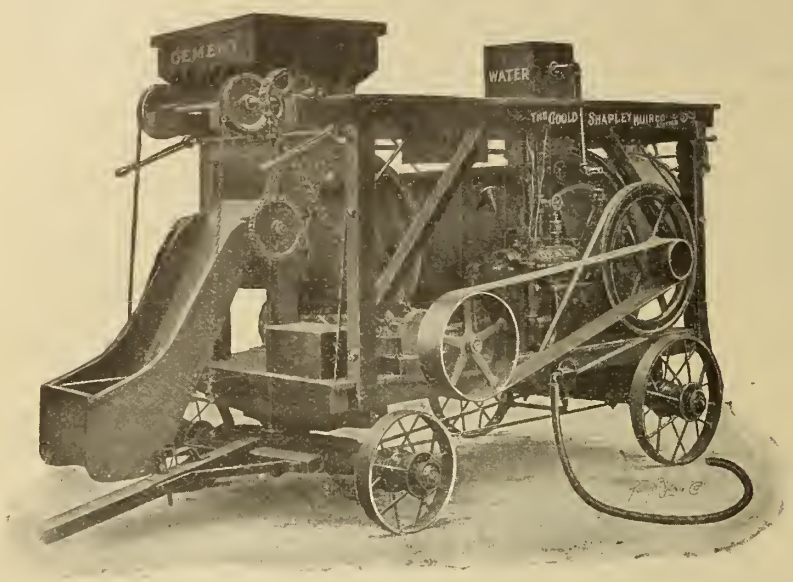

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160	Acres at	$4.00	per acre,	cash payment	$93.85,	first year's interest	$32.64	and nine instalments of	$80.00
"	"	4.50	"	"	107.85,	"	"	"	36.73	"	"	90.00
"	"	5.00	"	"	119.85,	"	"	"	40.81	"	"	100.00
"	"	5.50	"	"	131.80,	"	"	"	44.89	"	"	110.00
"	"	6.00	"	"	143.80,	"	"	"	48.98	"	"	120.00
"	"	6.50	"	"	155.80,	"	"	"	53 05	"	"	130.00
"	"	7.00	"	"	167.80,	"	"	"	57.16	"	"	140.00
"	"	7.50	"	"	179.75,	"	"	"	61.22	"	"	150.00
"	"	8.00	"	"	196.70,	"	"	"	65.28	"	"	160.00

Purchasers who do not undertake to go into residence on the land are required to pay one-sixth of the purchase money down, balance in five equal annual instalments with interest at the rate of 6 per cent. per annum.

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fleet; they might be of similar size and equipment to the two Empresses, or they might be of larger capacity and greater speed. Whatever was done in the future would depend entirely upon the result of the company's experience with the two Empresses.

During the week the steamer lay at Quebec she was visited by large numbers of shipping men, passenger agents and others interested in transportation matters on the invitation of the C.P.R. The steamer left Quebec Saturday, May 19, at 3.30 a.m., on her return trip to Liverpool.

In the evening Sir Thos. Shaughnessy was entertained at dinner by the Quebec Board of Trade, and in the course of a speech discussed the probability of the company making Quebec the headquarters of its fast passenger steamer business. At present it was not considered advisable, owing to the incomplete condition of the works of deepening and widening the channel, to take these steamers to Montreal. A considerable saving could also be made in expense by running the steamers to Quebec, but the question of labor was an important one, and negotiations were in progress concerning it. The rates of unloading were much higher at Quebec than at Montreal, and unless a satisfactory arrangement was reached the company would be forced to go to Montreal, as it did not propose to pay the high rates demanded. When the deepening and widening of the channel between Quebec and Montreal had been completed it was not unlikely that the steamers would also be run to Montreal.

U.S. Tonnage Tax on Vessels.

F. King, Secretary of the Dominion Marine Association, has issued the following circular to members: "The Association asked this year for the assistance of our Government in procuring for Canadian vessels that exemption from the U.S. tonnage tax to which the U.S. statute entitles them. By that statute vessels from any foreign port were entitled to exemption to the extent of the excess of the U.S. tax over taxes imposed on shipping entering the foreign port. Under this provision vessels from Ontario had already enjoyed complete exemption since 1885. We asked for that measure of exemption for other Canadian vessels to which they might be entitled, and we urged the abolition of the hospital tax in the province of Quebec in order that vessels from that province might be entitled to the complete freedom enjoyed by vessels from Ontario. Learning recently of pending legislation in the U.S., and as our Government had not yet signified its intentions or made any report of progress, I took the matter up through the U.S. Consul in Kingston, Ont., and find that recommendations made by the Commissioner of Navigation at Washington for the repeal of the reciprocal exemption provisions in the U.S. statute are likely to be enacted at this session of Congress. A bill to repeal these exempting provisions has already passed the U.S. Senate, and it has only to pass the House of Representatives and obtain the President's signature to prevent any possibility of our obtaining either the total or the partial exemption from the U.S. tax for which we have been looking. A report from the Secretary of the Department of Commerce and Labor to the Chairman of the Committee on Commerce of the U.S. Senate recommends the passage of the bill, and presents figures to support the statement that 'if the principal of reciprocal tonnage tax exemption were generally applied U.S. vessels would save about $1 in tonnage taxes at home for each $10 saved to foreign vessels,' and that 'the law proposed to be repealed is a plain misapplication of the theory of reciprocity.' The report also points out that the proposed repeal is important now as Great Britain is on the point of abolishing the British light dues, and thus becoming entitled to exemption from the U.S. tonnage tax. (A result apparently not in accord with the present agitation for greater protection to U.S. shipping.) The bill before Congress is of much importance to members of this Association. It not only defers the chance of relief from the U.S. tax on the part of Quebec vessels, but it also threatens the re-imposition of the tax upon vessels from Ontario. If the clauses permitting the President by his proclamation to exempt certain foreign vessels are repealed, the exemption now enjoyed by vessels from Ontario under President Arthur's proclamation of 1885 may be discontinued, and vessels from Ontario may thus have to pay the tonnage tax, which is 3c. per ton for five trips."

Atlantic and Pacific Ocean Marine.

T. R. McCarthy, of Montreal, has been appointed agent there for the Northern Steamship owners, of Christiania, Norway.

The C.P.R. has completed arrangements to run the steamers Montford, Montcalm and Monmouth, on a direct line between Montreal and Bristol. Heretofore the steamers ran to Liverpool, and thence to Bristol.

The Dominion Iron and Steel Co. has chartered the new SS. Boveric to take a cargo of 6,000 tons of steel rails from Sydney, N.S., to Vancouver, B.C., for the Vancouver, Victoria and Eastern Ry., now under construction there in connection with the Great Northern Ry., U.S., system.

The Judicial Committee of the Privy Council has granted leave to the owners of the Hamburg, Germany, SS. Albano, to appeal against the decision of the Supreme Court of Ottawa awarding damages to the Allan Line SS. Parisian, arising out of a collision at Halifax, N.S., Mar. 25, 1905.

The Allan Line has placed an order on the Clyde for the construction of a 10,000 ton steamer to replace the Bavarian, which ran on the rocks in the St. Lawrence near Quebec at the end of the season of 1905. The new steamer will be a 15 knot one, and will be fitted with ordinary steam engines and screws.

The underwriters have tenders under consideration for the salvage of the SS. Skidby, which went ashore on Sable Island recently. The tenderers are asked to name a price for the vessel as she lies, or a percentage of her value when floated and delivered at Halifax dry dock. If the undertaking is unsuccessful nothing is to be paid.

Furness, Withy & Co., who manage the Manchester Liners, report that the business of the line between Canadian ports and Manchester is steadily increasing. The principal portions of the cargoes consists of provisions, but latterly there has been a considerable increase in the number of cattle, and the quantity of lumber shipped.

The Head Line SS. Torr Head, from New Orleans, La., to Belfast, Ireland, ran into Halifax, May 7, for repairs, having lost the main part of her rudder at sea. For several hundred miles she was steered by her twin screws. The repairs to the rudder were made at New Glasgow, N.S. The Head Line runs a number of steamers between Montreal and Belfast and Dublin during the season.

A Liverpool, Eng., cable dated May 7, stated that the White Star steamers Majestic and Teutonic were to be withdrawn from the Liverpool-New York line and run between Liverpool and Canada. This report has been current at intervals for the past two or three years, and is not credited by the officials of the Dominion Line, which, like the White Star Line, is owned by the International Mercantile Marine Co.

The White Star, American, Dominion, Leyland and Atlantic Transport lines, owned by the International Mercantile Marine Co., have notified their salaried list of employes in Great Britain, that an extra week's leave on full pay, and preference in the fixing of holidays will be given to those belonging to any of the auxiliary forces, both concessions being dependent upon attendance at the annual camp meeting for training.

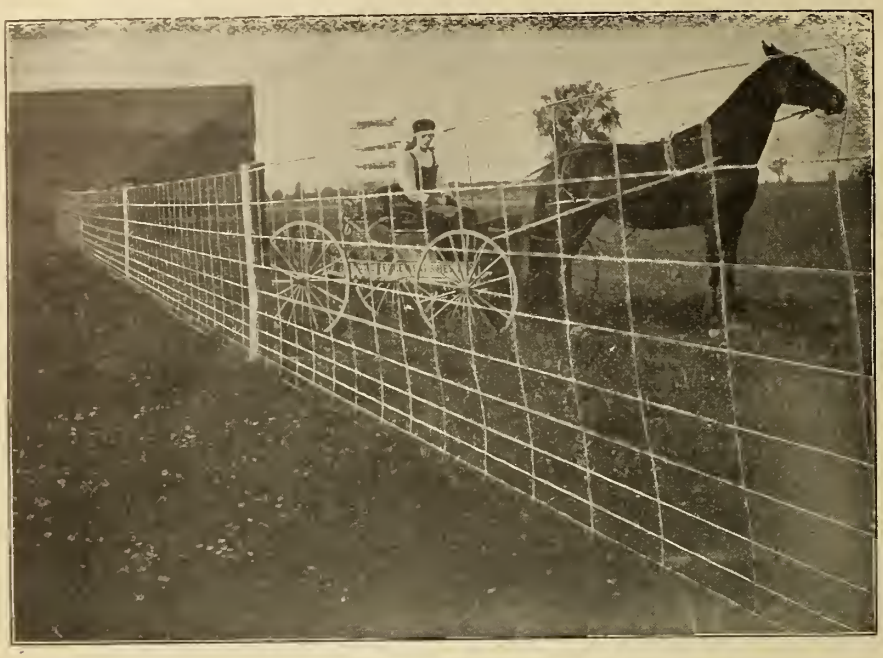
The annual report of the Cunard Steamship Co. showed that the profits for 1905, including £7,429 17s. 11d. brought, forward from 1904, were £322,212 7s. 8d. After debiting interest, reserving £182,061 13s. 2d. for depreciation of vessels and wharf properties, transferring £2,669 9s. 1d. to insurance fund, and £50,000 to reserve fund, there remained at the credit of profit and loss account £71,285 16s. 1d., out of which a dividend of 4% was paid, leaving £7,285 0s. 1d. to be carried forward to the current year's account. The insurance fund stands at £380,000 and the reserve fund at £150,000.

Capt. T. N. Arnit, a representative of the British East Coast Salvage Association, has made a thorough inspection of the wreck of the Allan Line SS. Bavarian, as she lies on Wye Rock, and reported that she was a constructive loss. The firm subsequently declined to undertake the salvage of the steamer for the underwriters, on the "no cure, no pay" principle. Capt. Arnit said it would cost from £20,000 to £25,000 to float the steamer, and another £20,000 for reconstruction purposes. The vessel could be successfully floated, but he declined to undertake the entire risk. A U.S. firm has undertaken the work of salvage on the terms declined by Capt. Arnit.

The Alley Steamship Co. is the title under which the new Government subsidised line between Vancouver, B.C., and New Zealand, will be operated. R. A. Alley, General Manager, was in Ottawa recently completing arrangements with the Dominion Government for the conveyance of about 1,000 tons of freight to New Zealand, being the Canadian exhibit at the International Exposition to be opened at Christchurch in Oct. The Beaucentaur is expected to arrive at Vancouver from New Zealand, June 1. She is reported to have a full cargo of freight, of which about 500 tons is for Eastern Canadian points. The second steamer to be employed in the line is the Afrikander.

The question of the pay of ship laborers at Quebec is being discussed by the C.P.R. and the Quebec Ship Laborers' Union. The rate of wages at Quebec is higher than at Montreal, and the C.P.R. desires to pay the latter rate. The union officials discussed the matter and decided that while the members would do all that was possible to make relations pleasant, they could not see their way to reduce the rates of wages. The C.P.R. is considering the desirability of taking in laborers from Montreal. D. McNicoll, in discussing the matter, stated that Quebec was the dearest port in America, which was largely due to the fact that the steamship traffic was not regular. There was not the same excuse for high wages now that the C.P.R. was making Quebec its regular port for its fast steamers.

The Allan Line and C.P.R. steamship officials are endeavoring to arrange with the British Post Office officials for an alteration of the day of sailing with the British mails from Liverpool, and the cutting out of the call at Moville, Ireland. The Canadian mails have always been despatched from London, Eng., on Thursdays, and put on board the steamers at Moville on Fridays; but the proposition would call for the despatch of the



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Notice is hereby given that a dividend of 6 per cent. on the paid-up capital stock of the company for the half-year ending 31st May, 1906, has been declared, payable 1st June next to the shareholders on record as on the 31st of May, 1906.

By order of the Board,

R. A. SMITH, Secretary

JAMES PLAYFAIR, Pres. & Gen'l Mgr. D. L. WHITE, Vice-President. J. W. BENSON, Sec'y-Treas.

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mails from London to Liverpool on Saturdays, so as to fit in with the sailings of the mail steamers from Canada. With the completion of this arrangement a satisfactory schedule of sailings can be arranged so that the mails can be carried by the Allan Line turbine steamers Victorian and Virginian, and the C.P.R. steamers Empress of Britain and Empress of Ireland.

With the sailing of the Wyandotte from St. John, N.B., for South African ports, May 8, the season of navigation for 1905-06 was closed. The number of steamers entering and clearing from or to over-sea ports was 113, against 101 for the season of 1904-05. The total tonnage inwards and outwards was 331,000 against 251,599 the preceding season. The number of passengers landed was 19,912, against 13,596 in 1904-05, and 8,259 in 1903-04. Of the passengers landed, the C.P.R. steamers brought 16,804; the Allan Line, 3,308, and the Donaldson Line, 959. Of the cargoes landed there were sent west 9,547 carloads, against 8,568 carloads in 1904-05. The total value of the exports was $23,199,541, of which $13,683,879 represents the value of Canadian exports and $9,495,662 the value of U.S. exports. Of the 7,008,229 bush. of grain handled at the elevator, 6,973,838 bush. were exported, an increase of about 4,250,000 bush. Of cattle there were exported 34,561; of sheep, 4,006, and of horses, 64; against 30,603 cattle, 14,464 sheep, and 54 horses in 1904-05.

When the Allan Line SS. Parisian was launched, she was the largest mail steamer on the Canadian route, and she held this position until 1898. Her length is 440 ft. and her gross tonnage 5,395. In 1898, the Canada, 500 ft. long and of 9,413 tons gross, was brought out by the Dominion Line; in the following year the Allan Line brought out the Tunisian, 500 ft. long and of 10,576 tons gross. The Victorian and Virginian, 540 ft. long, and of 12,000 tons gross, were brought out by the Allan Line in 1905, and the C.P.R.'s new SS. Empress of Britain, which has completed her first round trip, marks another advance. Her length is 569 ft., and her tonnage 14,500 tons gross. In the matter of speed, too, there has also been a decided advance, though not so marked as in the size of the steamers. The Parisian can make 14 knots an hour; the Tunisian makes 15½; the Virginian's best run from Moville to Rimouski shows an average of 17.14 knots an hour; and the Empress of Britain, on her first trip from Liverpool to Quebec, made it in 6 days, 16 hours, port to port, her contract speed being 18 knots and her speed trial 19½ knots.

The directors of the Quebec Transportation Co. met in Quebec recently and approved of the arrangements made by T. Harling, Managing Director, for the season's trade. It was reported that contracts had been made for freight covering the whole season of navigation. Arrangements had been made with the London Transport Co. to run the steamers Teviotdale, Puritan and Naparima on a fortnightly schedule, and other steamers of similar capacity if required. The Naparima is a steel, screw, schooner rigged steamer, built at Newcastle, Eng., 1890, her dimension being: length, 260 ft.; breadth, 36 ft. 2 in.; depth, 16 ft. 8 in.; she is fitted for water ballast, and with triple expansion engines, cylinders 20 in., 32½ in., and 53 in. by 36 in. stroke, of 174 n.h.p.; her tonnage is: gross, 1,649 tons; register, 1,043 tons. The Puritan is a steel, screw steamer, built at Stockton-on-Tees, Eng., 1897, her dimensions being: length, 356 ft.; breadth, 45 ft. 2 in.; depth, 27 ft. 9 in; she is fitted for water ballast, and with triple expansion engines, cylinders 25 in., 40 in. and 67 in., by 45 in. stroke, of 325 n.h.p.; her tonnage is: gross, 4,042 tons; register, 2,628 tons. The Teviotdale is a steel, screw, schooner rigged steamer, built at Port Glasgow, Scotland, in 1894, her dimensions being: length, 350 ft. 1 in.; breadth, 43 ft. 2 in.; depth, 27 ft.; she is fitted for water ballast, and with triple expansion engines, cylinders 24 in., 40 in. and 64 in., by 45 in. stroke, of 295 n.h.p.; her tonnage is: gross, 3,847 tons; register, 2,538 tons. The Teviotdale arrived at Quebec on her first trip May 15, and is to be followed by the Puritan.

Maritime Provinces and Newfoundland.

A. C. Newell has been appointed wharfinger at the Dominion Government wharf at Newellton, N.S.

The hull of the burned str. Springfield was sold at Indiantown, N.B., May 5, to P. W. Lantalum for $800.

S. Schofield, of the firm of Schofield & Co., St. John, N.B., shipping agents for a number of firms, died there May 9, aged 64.

The Island Tug Co., Charlottetown, P.E.I., has had a tug built at Yarmouth, N.S., for June delivery. The new tug has been named Islander.

G. W. Churchill, head of the firm of T. Churchill & Sons, shipbuilders and shipowners, Hantsport, N.S., died at Boston, Mass., May 2, aged 71.

An acetylene gas buoy, which was being towed to position in Halifax harbor, N.S., May 5, exploded, but no damage was done to the Lady Laurier, which was towing the buoy.

The Halifax, N.S., Pilotage Authority has passed a by-law providing for the payment to the secretary and treasurer of $800 a year, and the same has been ratified by Order-in-Council.

North Sydney, N.S., men who owned the str. Richard, which was burned during the winter, are reported to be negotiating for the purchase of the str. Renwick, 406 tons, in Newcastle, Eng.

Some lime in the cargo of the str. Lady Eileen was discovered to be on fire April 25, just as she was about to leave Reed Point for Campbellton, N.B. Damage was done to about 275 barrels of lime.

The Plant Line Co.'s str. Beverley was given a trial trip at Halifax, May 9, after her overhaul. It is stated that the steamer's name is to be changed before she goes on the Boston-Halifax-Sydney route.

The Dominion Government is having the chart of the Charlottetown, P.E.I., coast line corrected. The last survey was made in 1843 by Admiral Bayfield and Capt. Orlebar. The work is being done by Lieut. Musgrave.

The wrecking schooner Tyree, which got on the rocks in St. Peter's Bay, N.S., was floated and towed to Arichat, N.S., by the str. Lord Strathcona, May 9. She was subsequently towed to Quebec, where permanent repairs will be made.

The Star Line Steamship Co., St. John, N.B., has sold its str. Pokanoket to the James River Navigation Co., Petersburg, Va. The price is said to be $40,000, The Pokanoket was built at Philadelphia, Pa., in 1894, and was purchased by the Star Line in 1904, and ran on the St. John River during 1905.

The Governor Cobb, the turbine steamer which is being built at Chester, Pa., for the Eastern Steamship Co., is expected to be put on the Boston-St. John route early in June. She is similar in general appearance to the Calvin Austin, now on the line. Her dimensions are: length, 200 ft.; breadth, 51 ft.; depth, 20 ft.

The new French str. St. Pierre Miquelon, which has been put on the run between St. Pierre, Miquelon, and Sydney and Halifax, N.S., was built at Dunkirk, France. She has a capacity of 900 tons gross, can steam 15 knots an hour, and has accommodation for 60 cabin and 40 second-class passengers. She is owned by La Mouie Francaesse, a combination of three firms in St. Pierre, and replaces the Pro Patria, wrecked off Sydney in 1905.

An investigation was opened at Halifax, N.S., May 9, before Captain Turling, into the circumstances attending the collision between the steamers Strathcona and Havanna in the harbor, April 24, by which the latter was sunk. The Havanna was lying at anchor at the time, and the Strathcona was entering the harbor. The Havanna is owned by Capt. Farquhar, and was valued at $30,000, She had only just returned from a sealing trip on the Newfoundland coast.

The House of Commons was informed May 3 that the steamer service between Prince Edward Island and the mainland had been reasonably well performed by the steamers Stanley and Minto. During the coming winter it was proposed to transfer the ice-breaking steamer Montcalm from the St. Lawrence to the Northumberland Straits to aid the service. Parliament had not yet made an appropriation for the new steamer which the Government had proposed to place on the route.

Province of Quebec Marine.

The str. Campana which lost two blades of her propeller recently, making the trip from Quebec to Montreal, has been repaired, and was again on her route April 30.

M. Stalker has been appointed wharfinger at the Government wharf at Port Lewis, Que.; C. Hubert, wharfinger at Esquimaux, Que.; and I. Bissonnette, wharfinger at Coteau Landing.

The steamers St. Laurent and St. Helen, used in the ferry service between Montreal and St. Helen's Island, were overhauled and improved prior to being put on the service at the beginning of May.

The first steamer to leave the canal basin at Montreal for the season was the Ida, of the Capital Forwarding Line, running between Montreal and Ottawa. This was April 30, the Ottawa Forwarding Co.'s steamers Hall and Ottawan following.

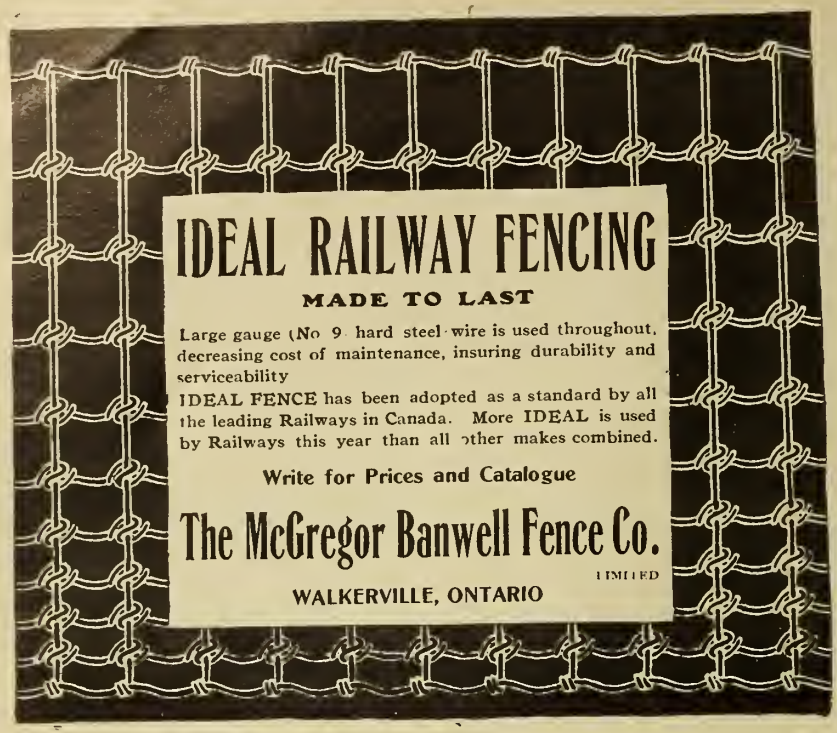
The amount expended by the Dominion Government on the dredging, lighting and improving the St. Lawrence channel between Montreal and Quebec, from 1867 to Dec. 31, 1905, was stated, in the House of Commons, May 7, to have been $4,467,651.

We are advised that nothing has been definitely decided by the Richelieu and Ontario Navigation Co. in reference to the proposed lengthening of the str. Quebec. The question of reconstructing the steamer has been under consideration for some time, the idea being to rebuild, using a portion of the present hull and engines.

Judge Dunlop, at the Admiralty Court sitting at Quebec, April 27, decided that he could not admit expert evidence in the case of the Montreal Harbor Commissioners against the owners of the str. Universe, and the other cases connected therewith, referred to on pg. 293 of our May issue. The hearing of the case has been further adjourned.

A question in the House of Commons, May 7, elicited the information that the bonded debt of the port of Montreal is $8,117,000, of which $2,222,000 is due to the public, and $5,895,000 to the Dominion Government. The interest on the proportion of the debt due to the Dominion has been fully paid up to Dec. 31, 1905.

The Great Lakes and St. Lawrence Transportation Co., originally established to carry grain from U.S. ports to Quebec for export,



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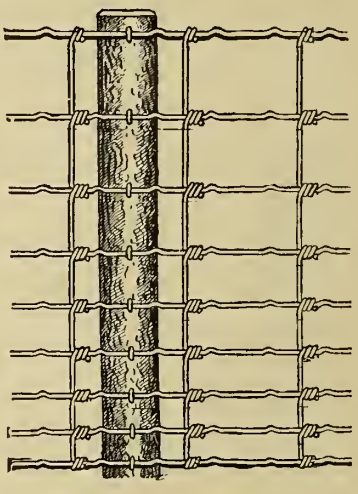

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and until 1905 running its steamers to Montreal, has decided to abandon that port, and tranship its grain at Buffalo, N.Y., for export through U.S. ports. The line was established by Capt. Wolvin and operates 10 steamers of large size.

The St. Lawrence Steamship Co. has been incorporated under the Dominion Companies' Act, with a capital of $20,000 and offices at Quebec, to carry on a general navigation business, and in connection therewith to lease or erect wharves, docks, warehouses, etc. The provisional directors are: L. C. Webster, W. G. McConnel, T. L. Brodie, V. E. Beauvais, Quebec; and L. E. Dubuc, Chicoutimi, Que.

The officers of the Quebec Transportation and Forwarding Co., the incorporation of which was referred to in our last issue, are: President, J. S. Thom; Vice-President, J. Hackett; Treasurer and Manager, W. J. Hackett. The capital of the company is $140,000 and not $40,000, as previously mentioned, and its offices are at 130 St. Peter St., Quebec. It will carry on the business of gulf, lake, river and general forwarders.

The Richelieu and Ontario Navigation Co.'s steamers Murray Bay, Tadousac and St. Irene will be operated on the Saguenay River during the current season, making four trips a day during June, and daily trips in July and August. The Quebec-Montreal service is being operated by the steamers Quebec and Montreal, and the daily service between Montreal and Prescott, Ont., which will commence July 1, will be operated by the Prescott and Brockville.

The bill for the reorganization of the Montreal Harbor Commission passed the House of Commons May 5. It proposes to substitute for the present board a permanent commission of three, to be appointed by the Government. The commissioners, it is suggested, will each be an expert in a special department; will devote their whole time to the work and be paid a suitable salary. The jurisdiction of the new commission will extend over the entire harbor; that is, from a little above the Victoria Bridge to Longue Pointe. The expenses of the present board for 1905 were $35,000, of which $10,000 was for the commissioners, $12,000 for the office staff, and $13,000 for the engineering staff. A number of names have been referred to in connection with the appointments of the new commissioners, those of W. F. Tye, formerly Chief Engineer C.P.R.; C. F. Smith, manufacturer; and A. Racine, wholesale merchant, being most frequently mentioned.

Ontario and the Great Lakes.

Capt. J. Thomas, Picton, Ont., died suddenly on April 30, on board the str. Fleetwing, which he was fitting out at Kingston, Ont.

The Niagara Navigation Co. opened its season May 1, when the Chicora made the initial run from Toronto to Lewiston, N.Y.

The Canada Atlantic Transit Co. has purchased the str. Kearsarge, of Cleveland, Ohio, which it had hitherto chartered.

Regulations have been approved by order-in-council for the operating of a steam ferry across the St. Clair River from Courtright, Ont., to St. Clair, Mich.

O. D. Fox has been appointed wharfinger of the Dominion wharf at Pelee Island, Ont., and T. Anderson has been appointed wharfinger at Pembroke, Ont.

The Rainy River Navigation Co.'s str. Kenora, which is undergoing an overhaul, will be put on her route between Kenora and Rainy River points, June 1.

The str. Lincoln has been overhauled, renamed the Premier, and put on a route between Pelee Island and Windsor, Ont. Capt. Stockwell, Leamington, Ont., is the owner and master.

A proposition is under consideration at Sarnia, Ont., and Port Huron, Mich., for the establishment of a new ferry steamer. Capt. King, Port Huron, is mainly interested in the proposition.

The shareholders of the Ottawa River Navigation Co., which also owns the Carillon and Grenville Ry., have formally ratified the sale of the company's vessels and property to the Central Ry. Co. of Canada.

The traffic report for the Canadian and U.S. canals at Sault Ste. Marie shows that from the opening of navigation to April 30, 1,079 vessels passed through, having a total tonnage of 2,513,267, or about double that for April, 1905.

The strike of the longshoremen at Buffalo, Detroit, and other U.S. ports on the Great Lakes, which went into effect at midnight, April 30, was a sympathetic one in order to secure the recognition by the owners of the Mates' Union. The strike lasted a couple of weeks.

G. Bailey has been appointed master, and A. McArthur chief engineer, of the Sagamo, the new steamer which the Muskoka Lakes Navigation and Hotel Co. is adding to its fleet this season. The chief engineer in charge of the engines of the nine steamers operated by the company is Jno. Mackenzie.

The Northern Navigation Co. has arranged to put its str. Britannic on a route between Detroit, Mich.; Sarnia, Goderich and Kincardine, Ont., during July and Aug. The steamer will leave Windsor, Ont., and Detroit, Tuesday, Thursday and Saturday, returning on Monday, Wednesday and Friday mornings.

The U.S. government has arranged to set up a number of prominent marks along the Great Lakes, so that captains of passing vessels may check off any error in their compasses and make the necessary adjustments. One mark is to be on the banks of the St. Clair River, and another in the Straits of Mackinack.

The construction of warping tugs, or "alligators," is one of the industries of Simcoe, Ont. These tugs are largely used in lumbering operations in Ontario, as well as in other provinces, and have to be registered and inspected in the same way as tugs that cannot be navigated in a few inches of water or across portages.

The Dominion Government has placed an order on the Georgian Bay, for the construction of a steel sea-going tug of the following general dimensions:—Length, 115 ft.; breadth, 23 ft.; depth, 13 ft. She will be fitted with a triple expansion engine, to which steam will be supplied at 180 lbs. pressure by a Scotch marine boiler 13 ft. 6 in. by 11 ft.

An Ogdensburg, N.Y., report states that at a meeting of shareholders of the newly formed Rochester and Ogdensburg Navigation Co., a resolution approving of the purchase of an excursion steamer was passed. The company has been negotiating for the purchase of the str. Idlewild, an excursion type steamer built at Wyandotte, Wis., 1879.

The Lake Abitibi Navigation and Trading Co. has been incorporated under the Ontario Companies' Act, with a capital of $40,000 and offices at Parry Sound, to carry on a general navigation business, to engage in shipbuilding, to carry on the business of hotelkeepers, etc. The provisional directors are J. Galna, W. F. Thomson, W. R. Smyth, of Parry Sound, Ont.

The str. Turbinia arrived May 1 from Kingston, Jamaica, at Kingston, Ont., where she was dry-docked, scraped and painted. She went on her route between Toronto and Hamilton, May 22. The question of rates has been under discussion with a view of doing away with the cutting of rates between the Turbine Steamship Co. and the Hamilton Steamboat Co., which went on during the seasons of 1904 and 1905.

The new str. Kathleen made her initial trip down the Winnipeg River from Ridout Bay, Kenora, Ont., April 29. She is equipped with powerful machinery and a 50-h.p. capstan to enable her to come up the rapids with a barge in tow. J. A. Dowsett and A. Robinson are the owners, the latter being captain. The steamer is intended to carry construction material to the G.T. Pacific Ry. construction camps.

The name of the str. Lincoln, of Toronto, official number 92,735, has been changed to Premier; that of the str. Robert A. Packer, of Sault Ste. Marie, Ont., official number 117,032, has been changed to Batchewana, that of the str. Gordon Campbell, of Cobourg, Ont., official number 116,813, has been changed to Strathmore, and that of the City of Owen Sound, Owen Sound, Ont., official number 107,598, has been changed to Erindale, by Order-in-Council.

The Dominion Parliament has passed an act extending the time for the construction of the St. Clair and Erie Ship canal, a project which has been before the country for a number of years. It proposes to cut a canal, navigable for the largest vessels, from the St. Clair river, through Lambton and Kent counties, to Lake Ontario, for the purpose of relieving the present congestion of traffic in the St. Clair and Detroit Rivers, and to shorten the distance between Upper and Lower Lake ports.

The Windsor Dredging Co. has been incorporated under the Ontario Companies' Act, with a capital of $40,000 and offices at Windsor, Ont., to carry on a dredging and towing business, and in connection therewith to acquire tugs and other vessels, and to purchase or to construct docks, wharves, etc. The provisional directors are: A. F. Healy, A. B. Drake, A. Peltier, W. J. McKee, H. W. Allan, G. E. Brooks, Windsor, Ont.; W. L. McGregor, Walkerville, Ont.

An Order-in-Council has been passed amending the order of April 18, 1905, adopting certain regulations for the compulsory use by all vessels passing through the locks of the Cornwall Canal, of the system there established, of electric traction by means of capstans and cables, in order to the diminishing of the risk of accident to the lock structures. The amendment to the order is in the following terms: "The above provisions and requirements shall not apply to mail and passenger boats, nor to tugs, pleasure yachts and government steamers—all such vessels to be allowed to enter and leave the locks under their own steam, as heretofore."

Following up the passing of the controlling interest in the Turbine Steamship Co. from Hamilton to Toronto, there have been a good many reports as to changes in the ownership of other lines of passenger steamers operating at the western end of Lake Ontario. The Hamilton Steamboat Co.'s stock has been sold to the syndicate controlling the Niagara, St. Catharines and Toronto Ry., and a change has been made in the directorate, Æ. Jarvis, A. Bruce, K.C., and A. Angstrom being elected directors, the other directors being M. Leggatt, H. B. Whitton and J. W. Lamoreaux. M. Leggatt remains President for the time being, and it is understood that F. Nicholls will join the board, and become president of the company at a later period.

A report to the Department of Railways and Canals shows that there has been expended upon The Trent Valley Canal to Mar. 31, $4,957,653. The contracts not yet com-

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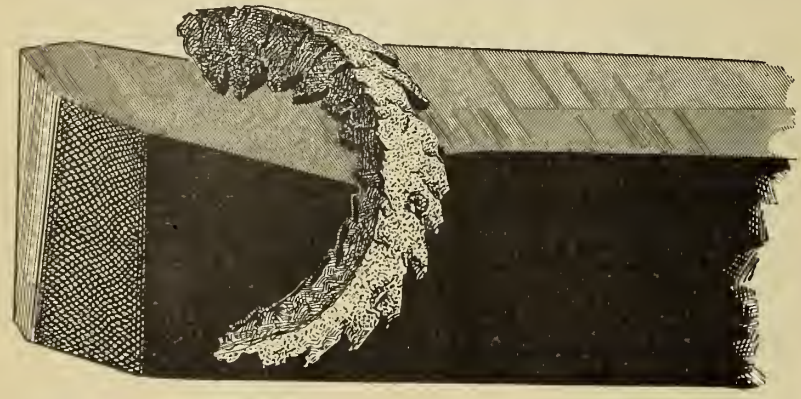

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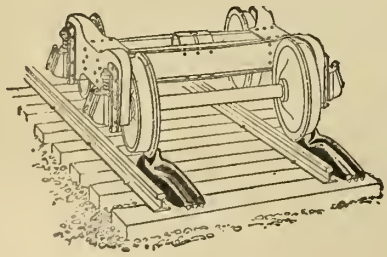

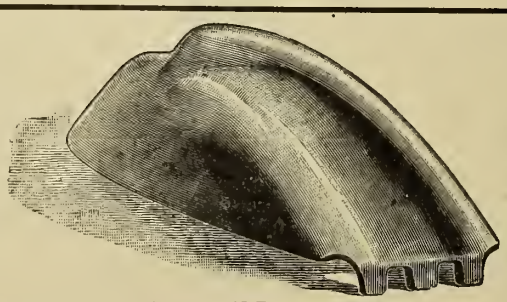

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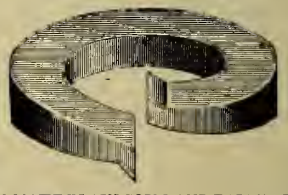

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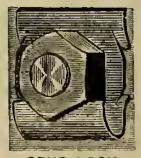

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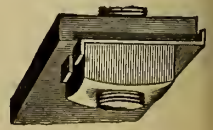

TIE BAR LOCK

pleted are the hydraulic liftlock no. 2 and sections 2 and 3 of the Simcoe and Balsam Lake division. The former is being constructed by the Dominion Bridge Co. of Montreal, which has already done work and supplied materials to the value of $128,515. Larkin & Sangster have the contract for no. 2 section, and have so far received $381,697. There is still about $30,000 worth of work to be done. Brown and Aylmer are the contractors for no. 3 section, and they have done work and supplied materials to the value of $445,171. There is still about $100,000 worth of work remaining.

The Montreal and Georgian Bay Canal bill came before the House of Commons May 16, the promoters desiring to have the power to issue bonds to the extent of $100,000,000. In the course of the discussion the Government was asked to make a declaration of policy in regard to the construction of the canal. The Minister of Public Works, in reply, stated that two years ago the Government, with the approval of Parliament, had undertaken to make a thorough survey of the whole route with a view of ascertaining the practicability and cost of constructing an efficient canal. The surveys were made and the engineers were now engaged in working out plans and estimates. Until these were completed and considered the Government was not prepared to make any definite statement.

The Canadian and U.S. sections of the International Waterways Commission met at Buffalo, N.Y., April 26, to consider and agree upon a joint report. This was subsequently forwarded to Ottawa and Washington, and deals almost mainly with the question of the Niagara River, and the taking of water therefrom for power development plants. The joint report suggests the limitation of the quantity of water to be so used; and defines the proportion to be utilized on the U.S. and the Canadian sides. The Canadian Commissioners present, in addition, a special report which deals more fully with the whole question from the Canadian point of view, and practically presents the case upon which the joint report was drawn up. It is suggested that a treaty be drawn between Great Britain and the U.S. for the preservation of Niagara Falls and River, upon the lines suggested, the treaty to run for 25 years.

The Department of Railways and Canals has under consideration tenders for deepening and widening the channel way of the upper entrance to the Canadian canal at Sault Ste. Marie, Ont. The depth of water at this point is now 18 ft., but it is proposed to make it 21 ft. 5 in., the same as at the lower entrance. The increasing size of vessels navigating the Upper Lakes, and the growth of the traffic will necessitate the provision of further canal accommodation in the near future. The U.S. Government has taken in hand considerable work on the Michigan side, involving the construction of a new lock, and it has been semi-officially announced that the Dominion Government has under consideration plans for the construction of a second canal with a lock 1,400 ft. long and 80 ft. wide, alongside the present one, in the near future. The Ontario Government has been asked to grant 55 acres of land alongside the canal in connection with the projected new work.

The ferry steamer under construction for the C.P.R. and other interests, to run between Port Burwell, Ont., and Ashtabula, Ohio, was named Ashtabula on the occasion of her launching at Detroit, May 12. The car ferry is of unusually strong construction to fit her for the trade in which she will be engaged, and to make her way through the heavy ice on Lake Erie during the winter. Her dimensions are: length over all, 350 ft.; breadth, 56 ft.; depth, 20½ ft. She will be provided with four tracks, having accommodation for 30 cars and capable of carrying 1,500 tons of coal on each trip. She will be equipped with two triple-expansion engines, cylinders 19½, 32 and 54 in. diameter, by 36 in. stroke, steam being supplied by four Scotch boilers, 13 ft. 2 in., by 12 ft., at 175 lbs. pressure; capable of giving a normal speed of 12 miles an hour. The C.P.R. was represented at the launch by S. Buchanan, and Capt. B. Haagenson, who is to be captain of the new steamer, was also present.

There has been a large number of casualties reported to vessels on the Great Lakes system of navigation since the opening of navigation. The U.S. marine papers report that to April 30, 21 vessels met with accidents, 19 being strandings, due, it is claimed, to low water. The most serious accident was the collision between the Saxona and the Zimmerman in the St. Mary's River. The former vessel is undergoing repairs in dry dock at Buffalo, N.Y., and the Donnelly Salvage and Wrecking Co., Kingston, Ont., has the contract to raise the Zimmerman. The Donnacona and the Iroquois were among the eleven vessels that got aground in the St. Mary's River in about a week. Other casualties in Canadian waters are reported as follows: April 25, U.S. str. Stanton, aground at Fort William, Ont.; April 26, U.S. str. Wallace, aground in Kingston harbor, Ont.; April 28, Canadian barge, sank in Cornwall canal; May 3, Canadian tug Clipper, sank off Bulwarks Island, Georgian Bay, three lives lost; May 3, Canadian str. Midland Queen, steering gear damaged off Amherstburg, Ont., which caused her to sheer and collide with U.S. str. W. G. Mather; Midland Queen's bows damaged.

Manitoba, Saskatchewan, Alberta, Etc.

A report from Athabasca Landing, Alta., states that navigation on the Peace River and Lesser Slave Lake opened about April 16, and that the first mails had arrived by steamer.

The Red River at Winnipeg was clear of ice April 13, but the Assiniboine River was not open for some days later. The navigation on both rivers was resumed by the end of April.

A new steamer for the Hudson's Bay Co.'s trade was launched May 5. When completed she will be put on a run between the head of Lake Winnipeg and Norway House on Play Green Lake, Keewatin.

The steam ferry at Battleford, Sask., has been given a thorough overhauling during the winter, and a number of improvements have been made. It may be said that the vessel has been practically rebuilt. Accommodation has been provided for three additional teams, and the space reserved for passengers has been railed off.

B.C. and Pacific Coast Marine.

H. W. Roberts, formerly C.P.R. freight agent at Seattle, Wash., has become a partner in the firm of Cook & Co., which operates the Western Steam Navigation Co.

The Northern Commercial Co. has announced that it will operate 27 steamers and 35 barges on the Yukon River and its tributaries during the current season.

The North American Transportation and Trading Co. is refitting its nine steamers for the Yukon River trade during the current season, which is expected to open June 6.

An order-in-council has been passed defining the limits of the port of Chemainus, B.C., and declaring it to be a port to which the act relating to harbor masters shall apply. L. G. Hill has been appointed Harbor Master.

The White Pass and Yukon Ry. is building two barges with a capacity of 400 tons each for its Yukon River trade. It will operate the following steamers during the season: White Horse, Selkirk, Dawson, Canadian, Columbian, Victorian, Bonanza King and Casca.

A report of the Tide Levels and Datum Planes of the Pacific Coast of Canada by W. B. Dawson, engineer in charge of the Tidal and Current Survey of Canada has been issued as a supplement to the report of the Department of Marine for the current year.

The Department of Marine erecting engineer, J. Montgomery, has been in British Columbia in connection with the erection of two fog alarm stations on the coast. He is expected on the Pacific Coast again in the autumn to supervise the installation of additional aids to navigation.

The Fraser River Towing and Fish Co. is having a tug built at New Westminster, B.C. It will be 80 ft. long, about 10 ft. longer than the company's tug Fearless. The engine and boiler have been constructed in Great Britain, and delivery was expected to be made by the end of May.

A company was formed in 1905 to put on a steamer on the lake to operate between Procter and Nelson, B.C., but nothing definite was done. There is a demand for further steamer accommodation on the lake, and it is expected that something may be done during the summer by this company. C. W. Busk, Nelson, was interested in the company.

The German str. Mariechen, which went ashore at False Bay, Alaska, has been got off the rocks and was towed into Juneau, Alaska, May 1. Temporary repairs were to be made there prior to the tow to Esquimalt being undertaken. Upon delivery at Esquimalt the British Columbia Marine Ry. Co. will be entitled to receive $39,000. Permanent repairs will be undertaken by the underwriters at Esquimalt.

A new steamer was launched at Nelson, B.C., May 5, for the C.P.R. trade on the lake. The steamer was built at the company's works, and was named Kuskanook, by Miss H. Gore, daughter of the company's Superintendent of B.C. Lake and River Service at Nelson. The new steamer is of the three deck type, and is of the most modern pattern. The cost of the steamer is put at $80,000, and $10,000 is being expended on the furnishings. She will be run on the Nelson-Kootenay Landing route.

The New Westminster Board of Trade, and a number of those interested in the navigation of the Fraser River, went over the channel between New Westminster and the lightship at the mouth of the river, May 2, on the invitation of A. G. Keefer, resident engineer of the Dominion Government. The channel was found to be in a very satisfactory condition at all points, the soundings giving a somewhat greater depth at the entrance to the channel than was expected. Plans of work were discussed with the engineer with a view to further improvements and the permanent maintenance of the channel.

The British Merchant Shipping Act has been amended to enable vessels that have no shelter deck to carry up to a maximum of 7 ft. on the main deck; also providing that vessels with a shelter may load wooden goods between the main and the shelter deck up to the full height of the latter. This goes somewhat further than the Dominion Act, and it is understood that the latter will be amended so as to be uniform.

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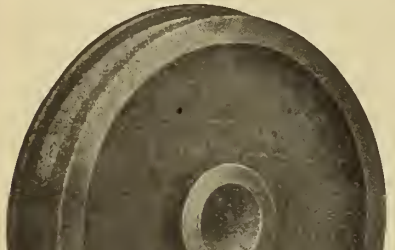

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Canadian Steamboat Inspection Rules.

The rules for the inspection of steamboats and for the examination of engineers of steamboats have been amended by an order-in-council passed May 10, in the following particulars:

1. That sec. 41 (a) part I, and sec. 75 (a) part II of the rules for determining the allowable working pressure on corrugated steel furnaces be amended by adding the following thereto:

Machine-made furnaces of the bulb type may be allowed the working pressure found by the following formula, provided they are practically true circles, that the pitch of the bulbs does not exceed 8 inches, that the depth from the top of the bulbs to the plain parts at the centre of the pitch is not less than 2¼ inches, that the plates are not less than 5-16 inch thick and the plain parts between the bulbs are fairly uniform in thickness:

$$\frac{15{,}000 \times T}{D} = \text{working pressure.}$$

T = thickness of the plain parts between the bulbs in inches.
D = outside diameter at the middle of the plain parts between the bulbs in inches.

2. That sec. 7, part VIII, of the rules be amended by adding thereto the following: (and where the passengers do not exceed 10 in number, the square-sterned boat may be dispensed with).

3. That the following be added to part IX of the rules as sec. 10:

(10) Steamboats built of iron or steel when employed chiefly in the carriage of freight and carrying a limited number of passengers not exceeding in number 25, if provided with a duplex pony pump, double acting, having a cubical capacity at least equal to a duplex pump having cylinders 4 inches diameter and 8 inches stroke, and provided with hose as heretofore stated, may be considered sufficient in lieu of the hand pumps as hereinbefore specified.

Freight Matters on Great Lakes.

Our Winnipeg correspondent writes as follows: "As mentioned in last report, the rate on wheat from the Canadian head of the lakes to Buffalo took a very decided drop at the opening of navigation, as U.S. boats were freely offered at 1¾c. per bushel, against a Georgian Bay rate of 2¼c. named by Canadian vessels. This wide difference in rates was caused by the backward weather preventing the open pit ore mines being worked on account of frost and forcing a number of ore boats into the grain trade until such time as ore was moving more freely to the orc docks at the head of the lakes. Owing to fears on the part of shippers as to the effect of the longshoremen's strike, very great efforts were made by shippers to get as much wheat as possible moved before May 1, and for that reason a great deal more wheat was moved to Buffalo than is usually the case in the spring. This extra movement is now the cause of a very slack demand for tonnage of any kind so far as the wheat trade is concerned, and, of course, is having a very depressing effect on Canadian shipping, as it has practically nothing but wheat to handle, the ore and coal trade being largely in the hands of the U.S. people.

Our Port Arthur correspondent wrote on May 10: The first actual effects of the use of an ice-breaker in opening navigation for Canadian inter-lake trade, was experienced here this spring, when the steel ice-breaker, James Whalen, opened Port Arthur harbor and Thunder Bay on April 3. She then broke her way into Fort William and opened the Kaministikwia River. She literally riddled the ice in Thunder Bay, so that the first offshore wind carried it out into Lake Superior. She broke blue ice 32 ins. thick without difficulty, inside the Port Arthur breakwater. Outside the breakwater it was 30 ins. thick. On April 10 she had the ice in such condition that any freighter could make her way in or out of Port Arthur or Fort William, thereby demonstrating her ability to open these harbors at any date that may be required.

The statistics of the opening of the St. Mary river at Sault Ste. Marie for the past 19 years show that it was free for the passage of vessels an average of 12 days earlier than Thunder Bay. This year the first passage through the St. Mary river was on April 15, so that assuming this to be an average year, the work of the ice-breaker made it possible to navigate these waters 12 days earlier than would have been the case had she not been employed. These 12 days mean very much to Canadian exporters of grain, as they will now be able to ship it out as early as their U.S. competitors can out of Duluth.

The head of Canadian lake navigation has never known such a busy opening as it has experienced this year. More grain was shipped out of Port Arthur and Fort William during the month of April this season than ever before in the history of these ports, the round figures being 5,500,000 bush.; about 3,000,000 of this was carried in U.S. bottoms, mainly to Buffalo, N.Y.

The going rate to Georgian Bay and Lake Huron ports has been 2¼c. The U.S. vessels carried it at same rate to Buffalo.

The strike of the mates has resulted in keeping U.S. tonnage off the market. This should result in stiffening rates, and giving further employment in the grain trade to Canadian carriers, and direct a larger portion of our western grain through all Canadian channels.

Coal receipts at the Canadian Northern Ry.'s new coal docks at Port Arthur and the C.P.R. docks at Fort William, have been exceptionally heavy for this early date.

Several cargoes of rails have arrived at Fort William, consigned to the G.T. Pacific Ry., for use on its Lake Superior branch.

Westbound package is unusually heavy on the C.P.R., Northern Navigation, Montreal and Lake Superior Line, and the Merchants Line steamers.

Aids Wanted for Navigation.

The Dominion Marine Association has submitted the following memorandum to the Department of Marine:

BRIGHTON HARBOR.—The ranges for entering and leaving this harbor are so far away from the narrow entrance at the mouth of the harbor that a gas buoy should be placed on the opposite side from Salt Point so as to mark the channel on the starboard side entering the harbor. On this spot several strandings have taken place in the last few years.

TRENTON HARBOR.—On making an entrance to this harbor bound eastward there is no mark to show where the turn should be made, and a gas buoy should be placed on the port side of the channel so that steamers bound down and wishing to enter the harbor will know where to turn to port and will not be compelled to run down near Baker's Island. There should be at least three gas buoys marking the entrance to this harbor, two on the port side and one on the starboard side. The channel is very narrow and range lights away to the westward on the land are too low and of no use to guide a mariner into the harbor with safety. If properly placed and constructed so as to be effective, range lights might serve the desired purpose.

PRESQ'ILE POINT.—A fog horn is very necessary at this point. Recommendation has previously been made to the Department and is understood to be under favorable consideration.

NORTHPORT SHOAL.—A gas buoy should be placed on the shoal in the middle of the waterway near Northport in the Bay of Quinte. The shoal runs about east and west with from 3 to 4 ft. of water covering it, and less in some seasons. While deeper water lies to the north and south of the shoal, the channel on the south side is chiefly used, especially so by passenger steamers. To the west of Deseronto is Telegraph Island light, after passing which the steamer follows the south shore until off Northport and past the shoal, when it is possible to pick up Belleville Harbor light and obtain a course to pass through narrows at Massassaga and Ann Points. The land on both sides of waterway in the vicinity of Northport is low, making it difficult to pick up land marks at night and navigation is dangerous owing to the shoal mentioned being unlighted. As an aid to navigation and protection to shipping interests a gas buoy should be placed on it.

RIDEAU LAKES AND RIVERS.—No attempts have been made to buoy and light this waterway efficiently, and the following improvements are very much desired. Lights on the various locks. Lights in the river between Smith's Falls and Merrickville. Lighting by electricity, operated by water power, is suggested. Buoys between Merrickville and Ottawa and between Smith's Falls and Kingston.

OTTAWA RIVER.—A request is also made for lighting and buoying on the route from Ottawa to Montreal at the various points where these aids to navigation are required.

LONG POINT, LAKE ONTARIO.—A gas buoy is desired towards the outer end of the shoal which extends from Long Point, west end of Wolfe Island, in the direction of Pigeon light. This is on the direct route between Cape Vincent, N.Y., and Kingston, Ont., the regular mail and travel route between New York State and Central Ontario.

IN SNEY CHANNEL.—The Sney Channel in the St. Lawrence River above Dickenson's Landing should be buoyed, as it has been every year until last season, when for some unknown reason it was omitted. There is a particularly bad shoal or rock near the middle of this channel on which a striped buoy should be placed, there being good water on each side of it.

ILE PERROT AND LAKE ST. LOUIS.—A gas buoy is required half way between Windmill Point on Ile Perrot and light ship No. 3, on Lake St. Louis, St. Lawrence River. There is a long stretch between these two points and it is impossible in misty weather to see the light on the light ship after leaving Windmill Point. On account of there being nothing to show the edge of the channel it is impossible to judge the distance from shoal water, and unless the lights can be kept in view there is great danger of grounding in shoal water on the north side of the channel.

BROCKVILLE NARROWS.—A gas buoy in Brockville Narrows abreast of the head of the first island above Brockville would prevent vessels grounding during the night in the open space just above this point. This place is very deceiving to pilots at night, and a number of vessels have grounded there in the past few years.

PORT COLBORNE RANGE LIGHTS.—Should be of distinctive color or occulting. At present they cannot be sufficiently distinguished from other lights.

PORT DALHOUSIE.—A fog horn is much needed to mark this entrance.

SURPRISE SHOAL, GEORGIAN BAY.—Gas or gas and whistling buoys should be placed on one or both ends of this shoal.

HOPE ISLAND AND GIANT'S TOMB, ETC.—A strong recommendation is made that some

kind of modern power fog alarms should be installed where there is nothing but hand power now used at various points on Georgian Bay. Special reference is made to the needs of Hope Island and Giant's Tomb.

POINT PORPHYRY, LAKE SUPERIOR.—A power fog horn is required here, and of such a character as to be easily distinguished from that at Thunder Cape.

MICHIPICOTEN ISLAND.—A light and fog horn are suggested again for the benefit of vessels which may take this course down the lake, as is often done.

NORTHSHORE, GEORGIAN BAY AND LAKE HURON.—Attention is called to the advantage of this route over the more exposed open crossing of the Bay and Lake in stormy weather, and while men with good local knowledge now navigate it in safety the request is made that consideration be given to the advisability of protecting the route by lights, buoys and other aids where necessary, in order to make it of general use.

OTHER IMPROVEMENTS.—The request is also renewed for those improvements named in the Association's memorial presented last year which have not yet been granted.

The Association has also asked the Department of Railways and Canals for fender posts at certain locks on the St. Lawrence route to protect side-wheel steamboats entering bound down, for mooring posts through certain canals, and for protecting booms. Consent has already been given to part of this latter request. The Department of Public Works has been asked for improvements in Belleville and Trenton harbors; the dredge Sir Richard has been sent to Belleville, and tenders have been asked for the work suggested at Trenton.

Notices to Mariners.

The Dominion Department of Marine has issued the following:

No. 26. April 9.—British Columbia—67. Malaspina Strait, Pender harbor, uncharted rock.

No. 27. April 9.—Nova Scotia—68. South coast, wrecks disappeared.

No. 28. April 11.—British Columbia—69. Vancouver Island, east coast, Sidney channel, Little Group, Dock Island, Wigham light replaced by gas-lighted beacon.

No. 29. April 14.—Quebec—70. River St. Lawrence, White Island reef lightship to be replaced temporarily by lightship no. 15.

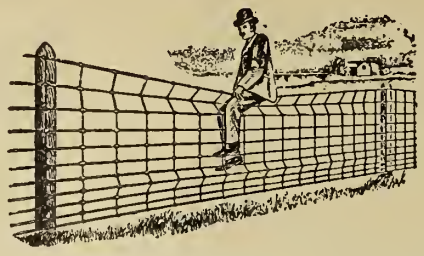
No. 30. April 17.—Quebec—71. Chart Ile Marie to foot of Ile Bouchard has been issued, and can be obtained from the Department's agents at Montreal and Quebec at 15c. per copy.

No. 31. April 19.—Ontario—72. Lake Ontario, entrance to Presqu'ile bay, Salt point light discontinued. 73. River St. Mary, Pointe aux Pins, change in character of main light.

No. 32. April 19.—Quebec—74. River St. Lawrence, ship channel between Quebec and Montreal, Ste. Anne de Sorel, range lights to be established. 75. River St. Lawrence, ship channel between Quebec and Montreal, Ile de Grace, additional light forming a range. 76. River St. Lawrence, ship channel between Quebec and Montreal, gas buoys established, change in gas buoys.

No. 33. April 25.—Quebec.—77. Gulf of St. Lawrence, Martin River, new lighthouse, change in character of light. 78. Gulf of St. Lawrence, Island of Orleans, Ste. Petronille, light improved.

No. 34. April 26.—Ontario—79. Lake Erie, Port Stanley, change in light. 80. Georgian Bay, south side, Collingwood, light on breakwater improved.



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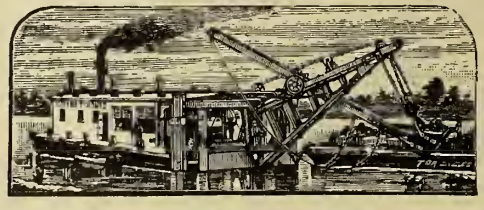

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No. 35. April 27.—Quebec—81. Telegraph cable laid between Crane Island wharf and the south shore of the River St. Lawrence.

No. 36. April 28.—Nova Scotia—82. South Coast, Port Mouton, hand fog horn at light station. 83. South Coast, Halifax harbor, sunken wreck. Prince Edward Island.—84. Hillsborough bay, Charlottetown, correction of position of buoy.

No. 37. April 30.—British Columbia—85. West coast, Clayoquot sound, Fortune channel, Mosquito harbor, Hankin rock, buoy established. 86. Vancouver Island, south coast, Juan de Fuca Strait, establishment of fishing traps. 87. Juan de Fuca Strait approach, Swiftsure bank, whistling buoy to be established.

No. 38. May 5.—Nova Scotia—89. South coast, Little Hope lighthouse burned down, temporary light. 90. South coast, Mary-Joseph harbor, eastern entrance, Thrumcap islet, hand fog horn at light station. 91. South coast, Whitehead Island, hand fog horn at light station. 92. Lennox passage, Goulet beach shoal, buoy established.

No. 39. May 7.—British Columbia—93. Vancouver Island, west coast, Barkeley Sound, Sechart channel, eastern entrance, Swab rock, light established.

No. 40. May 9.—Ontario—94. Lake Huron, Manitoulin Island, west end; Mississagi strait, sounding of fog alarm temporarily discontinued.

The following have been issued by the U.S. Hydrographic Department:

No. 19. May 12.—Lake Superior—711. Isle Royal, south west end, corrected position of shoal. St Mary's River—713. Hay Lake channel, Lower Hay Lake, out east side middle light no. 12, beacon carried away, float light established. Lake Huron—717. Straits of Mackinack, Poe reef light vessel replaced by light buoy.

Among the Express Companies.

The Dominion Ex. Co. has opened offices at Janetville, Ont.; Temiskaming and Windsor Mills, Que.; and has closed its office at Venosta, Que.

The Western Ex. Co. has opened offices at Sand River, Tioga Jct., Mich.; Warren, Minn.; Britten, Nekoma, N.D.; Central Ave. and Superior, Wisconsin; and has closed its office at Onota, Mich.

The Dominion Ex. Co. opened its summer routes to Europe via Quebec; between Toronto and Lewiston, N.Y., via Niagara River Line; to points on the upper lakes and to Georgian Bay local ports May 1.

H. B. White, the Dominion Ex. Co.'s cashier at St. John, N.B., has been committed for trial upon five different charges of forgery and theft. By means of forged orders he obtained several thousand dollars during the two or three weeks he was acting as cashier.

The Canadian Ex. Co. has arranged its summer routes in connection with the steamer of the Northern Navigation Co. on Georgian Bay; the Muskoka Lakes Navigation and Hotel Co. on the Muskoka Lakes; the Huntsville, Lake of Bays and Lake Simcoe Navigation Co. on the Lake of Bays; and the Magnetawan River and Lakes Steamboat Co.

The Dominion Ex. Co. announces that it will not accept C.O.D. shipments of liquor destined to offices in New Brunswick where the Scott Act is in force. The Canada Temperance Act does not prohibit the transportation of liquor shipments not C.O.D. between any points within the province, or the shipping of liquor C.O.D. or otherwise from a point outside the province to a point within the province of N.B.

The Canadian Ex. Co. announces the opening of routes between Maccan and Joggens, N.S., on the Joggins Ry.; between Chatham and Wallaceburg on the Chatham, Lake Erie and Western Ry., and between St. Jacques Jct. and St. Jacques, Que., on the Great Northern Ry. of Canada, and the opening of offices in connection therewith at Covered Bridge, Memramcook, N.B.; Joggins, River Hebert, N.S.; St. George, Que.; Wallaceburg, Ont.

The Dominion Ex. Co. announced that effective May 1, its agents at points on Pere Marquette Rd., where the Canadian Ex. Co. is not represented, are authorized to waybill shipments destined to offices of the Canadian Ex. Co., common or exclusive, at one graduate on the rate formerly used by the Canadian Ex. Co. All such shipments destined to exclusive offices of the Canadian Ex. Co. must be routed for transfer to delivering company at a transfer point on the Pere Marquette Rd.

H. Creighton, Superintendent Canadian Ex. Co., states that the company's business is being carried on successfully over the I.C.R. and P.E.I.Ry., upon which a number of the station agents struck for an advance of remuneration for express work, April 21. New agencies have been opened at a number of points on the line, and at others the business is being handled by the agent at the nearest point, or by freight from the nearest town office. The number of agencies affected by the strike is stated to be 77.

The Dominion Ex. Co.'s Atlantic Division as re-arranged includes all offices on main or branch lines north of Ottawa River, east of but not including Hull, Que., and all offices east of Montreal, north and south of River St. Lawrence; V. G. R. Vickers, Superintendent, Montreal. Its Eastern Division as re-arranged includes all offices on main or branch lines east of but not including Toronto and Port Arthur, Ont., west of but not including Montreal, including Hull, Que.; Waltham branch, Maniwaki branch, Soo branch, but does not include offices north of Ottawa River east of Hull, Que; J. A. Boswell, Superintendent, Montreal.

Telegraph and Cable Matters.

The G.N.W. Telegraph Co. has opened offices at Walsingham Centre, Ont.; Bromptonville, St. Gregorie, Que.

The G.N.W. Telegraph Co. has opened an office at Rexton, N.B., which had been without a telegraph office for about six months.

The G.N.W. Telegraph Co. has completed the stringing of a new wire between Toronto and North Bay, Ont., and is extending its lines into the Cobalt and Temiskaming district.

M. J. Smith, of the Marconi Wireless Telegraph Co.'s station at Wellfleet, Mass., has been appointed wireless operator to the Wellman polar expedition, which will start from Spitzbergen in June, in an airship.

A telegraph cable has been laid by the Department of Public Works from Crane Island to the south shore of the St. Lawrence River. The cable runs from the west side of the wharf on the island, on a course a little east of south to a point half way between the town of St. Thomas de Montmagny and Methot's wharf, passing east of black can buoy, no. 75B., a total distance of 3⅜ miles.

The latest developments of wireless telegraphy, as reported to the English Marconi Wireless Telegraph Co., include the construction of an apparatus for directing and controlling the electric waves so that they may be aimed at a specific point. Hitherto the waves have radiated indiscriminately, and could be intercepted at any number of Marconi stations. It is also reported from England that it is expected that the stations at Sydney, N.S., and Poldhu, Cornwall, Eng., will be opened for the public transmission of commercial messages in Sept.

The Anglo-American Telegraph Co. has 14 trans-Atlantic cables connecting Valentia, Ireland, and Newfoundland, and Minon, France, and St. Pierre, Miquelon. The Commercial Cable Co. has 11 cables connecting Waterville, Ireland, and Canso, N.S.; New York and Rockport, Mass.; and Emden, Germany, and New York. The Direct U.S. Cable has two cables between Ballinskellig's Bay, Ireland, and Halifax, N.S., and Rye Beach, N.H. The Western Union Telegraph Co. has 13 cables between Sennen Cove, Cornwall, Eng., and Dover Bay, N.S.

The Newfoundland Government proposes to expend $20,000 on new postal and telegraph offices, and $20,000 on establishing wireless telegraph stations on the Labrador coast, during the current year. The colony now owns and operates 2,500 miles of telegraph lines throughout the island, connecting with the Commercial Cable System at Canso, N.S., and extending to Labrador through the agency of the Marconi Wireless telegraph. The revenue from the island telegraph system for 1905 was $24,269, an increase of 42% on the previous year. The estimated revenue for the current year was $43,000. A contract had just been closed between the Government and the Marconi Wireless Telegraph Co. for an interchange of business, the contract to run for ten years. The rate for the transmission of telegrams within the colony had been reduced under Government ownership from 2½ cents to 1 cent a word. These statements are taken from the speech of the treasurer of the colony in presenting the budget in the Colonial Legislature.

The contract between the Newfoundland Government and the Canadian Marconi Wireless Telegraph Co. provides for the company taking over and operating the wireless telegraph stations on the Labrador coast, and to build and operate such other stations as the Government may desire. Provided the sealing steamers are equipped by their owners with the necessary apparatus, the company will build a station on the north-east coast of the island, receiving specific tolls on all messages forwarded to and from the vessels. It will also deliver to the Government telegraph stations all commercial messages received at the Marconi station at Cape Race and other headlands from passing vessels. The Government on its part agrees to have all telegraphic business to and from the island transmitted by the company's stations when the Government cable is interrupted; to admit the Marconi equipment free of duty, and not to grant licenses for the installation of other systems of wireless telegraphy during the continuance of the agreement, which is to run for ten years.

The Grand Trunk Pacific Telegraph Co. is the title of a company for the incorporation of which the Dominion Parliament is being asked to pass an act at its current session. The incorporators named in the application are C. M. Hays, F. W. Morse, W. Wainwright, W. H. Biggar and D'A. Tate, all of whom are G.T.P. Ry. directors or officers, and with the exception of F. W. Morse, Vice-President and General Manager G.T.P. Ry., are G.T.R. officers. The company seeks power to carry on a commercial telegraph business along the lines of the G.T.P. Ry. and connecting with outside points; to construct or acquire telephone lines, and to operate wireless telegraph stations. The capital proposed in the bill was $10,000,000.

and it was stated before the Railway Committee of the House of Commons May 3, that the company would probably construct 10,000 miles of lines and branches. In passing through committee amendments were agreed to fixing the capital at $5,000,000; providing for the fixing of rates subject to the approval of the Railway Commission; providing in so far as wireless telegraph arrangements are concerned, they must be subject to the Governor-in-Council; and for the protection of municipalities without interference by the general railway act. During the discussion the Minister of Railways stated that he was authorized by the applicant to state that there was no intention of taking over the G.N.W. Telegraph Co.'s lines and business.

General Telephone Matters.

The Bell Telephone Co. has completed the installation of a metallic circuit between London and Thorndale, Ont.

The Bell Telephone Co. has completed the installation of a central energy switchboard at its Kingston, Ont., exchange.

The prospects of the Eastern Telephone Co. are at present such that the directors expect to declare a dividend of 2½ % in June.

The Winnipeg, Man., City Council is negotiating with the Bell Telephone Co. for the construction of a telephone line from the city to the quarry near Stonewall.

The rural telephone system established at Belmont, Ont., about four years ago, has now over 70 subscribers. The line connects with Harrietsville, Aylmer, and Dorchester Station.

The first vote under the act respecting municipal telephones recently passed by the Manitoba Legislature took place at Langford, April 27, when the by-law was defeated by 125 votes to 73.

The Royal Hotel, St. John, N.B., is being equipped with a telephone instrument in every room. The hotel exchange will be located on the ground floor, and connection will be made with the lines of the N.B. Telephone Co.

Dr. C. F. Fraser, heretofore Vice-President, has been elected President of the Nova Scotia Telephone Co., succeeding the late B. W. Chipman. He is succeded as Vice-President by J. Y. Payzant, and W. Robertson has been elected to fill the vacancy on the directorate.

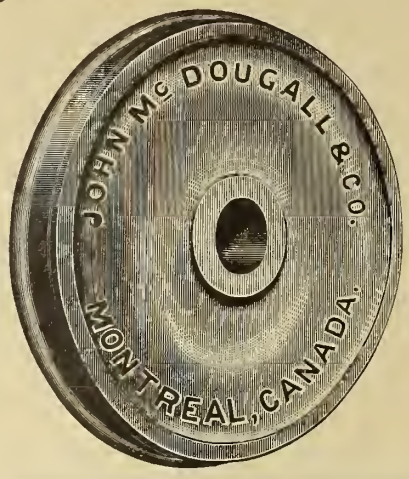
The Prince Edward Island Legislature has passed an act extending the franchise of the Telephone Co. of P.E.I. for 10 years; providing for the expenditure of about $20,000 on extensions and renewals, etc., and increasing the Government subsidy from $600 to $910 a year.

The annual meeting of the Maritime Electrical Association will be held in Sydney, N.S., in July. The committee in charge of the local arrangements includes F. A. Bowman, Eastern Telephone Co.; J. R. Burns, Western Union Telegraph Co.; and A. F. Townsend, Cape Breton Electric Co.

The Alberta Government proposes to employ an expert telephone man and go ahead with the construction of long distance lines throughout the province, as soon as sufficient facts can be gathered regarding business. The act authorizing this to be done is similar to that passed in Manitoba.

The Bellechasse Telephone Co. proposes to issue $500,000 of new stock for the purpose of extending its lines into Quebec city from the south shore. The company now operates in Lotbiniere, Dorchester, Levis, Bellechasse, Montmagny, L'Islet, Kamouraska, Temiscouata, Rimouski, Matane, and Bonaventure.

JOHN McDOUGALL & CO.
MONTREAL, QUE.



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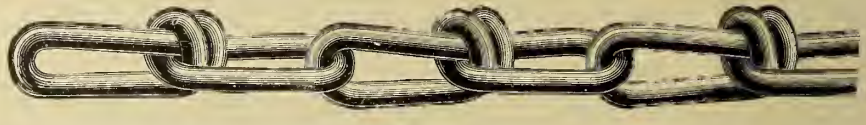

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In the course of a discussion in the House of Commons, May 3, on the G.T. Pacific Telegraph Co.'s application for an act of incorporation, A. Zimmerman, chairman of the Parliamentary Committee on Telephones, stated that the nationalization of telephones and telegraphs would involve a bigger investment than Canadians were prepared at present to undertake.

The Dinorwic and Gold Mines Telephone Co. has been incorporated under the Ontario Companies' Act for the purpose of carrying on a telephone business in the Rainy River district. The capital is fixed at $40,000 and the offices are in Toronto. A. Blum, Brookline, Mass.; H. W. Scattergood, Philadelphia, Pa., and A. Campbell, Detroit, Mich., are the provisional directors.

The Mount Albert Telephone Co. has been incorporated under the Ontario Companies' Act with a capital of $10,000 and offices at Mount Albert Ont., to carry on a general telephone business in the townships of East Gwillimbury and Whitchurch, York county; the townships of Scott and Uxbridge, Ontario county. The provisional directors are A. Lapp, T. Graham, W. D. Stokes, T. Wallis and G. Haigh.

The Edmonton, Alta., City Council has before it offers for the equipment of a municipal owned telephone system. The report

(Continued on page 369.)

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DETROIT

NIAGARA GRAND ISLAND BRIDGE COMPANY

The Annual General Meeting of the Niagara Grand Island Bridge Company, for the election of Directors and other general purposes, will be held on Wednesday, the 6th day of June, 1906, at the hour of eleven o'clock in the forenoon, at the Company's Head Office, in the City of St. Thomas.

NICOL KINGSMILL,
Secretary, N.G.I.B.Co'y.

Dated at St. Thomas, 25th April, 1906.

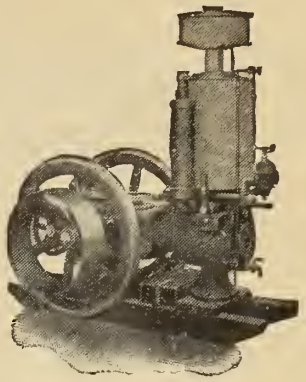
NIAGARA RIVER BRIDGE COMPANY

The Annual General Meeting of the Niagara River Bridge Company, for the election of Directors and other general purposes, will be held on Wednesday, the 6th day of June, 1906, at the hour of eleven o'clock in the forenoon, at the offices of the Canada Southern Railway Company, in the City of St. Thomas.

NICOL KINGSMILL,
Secretary, N.R.B.Co'y.

Dated at St. Thomas, 25th April, 1906.

GASOLINE ENGINES



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Electric Light Line Wire, Incandescent and Flexible Cords,
RAILWAY FEEDER AND TROLLEY WIRE
Americanite, Magnet, Office and Annunciator Wires,
Cables for Aerial and Underground Use.

JOHN GALT, C.E., M.E., M. Can. Soc. C.E., President
A. L. READING, Manager, (Late with R. W. Hunt & Co.)
THOS. C. IRVING, Secretary-Treasurer

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MONTREAL, - QUEBEC

I. A. YOUNG,
AGENT

CANADA SOUTHERN RAILWAY COMPANY

The Annual General Meeting of the Canada Southern Railway Company, for the election of Directors and other general purposes, will be held on Wednesday, the 6th day of June, 1906, at the hour of eleven o'clock in the forenoon, at the Company's Head Office, in the City of St. Thomas.

NICOL KINGSMILL,
Secretary, C.S.Ry.Co'y.

Dated at St. Thomas, 25th April, 1906.

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STREET RAILWAY AND ELECTRICAL SUPPLIES OF EVERY DESCRIPTION

Hard Red Fibre, all sizes in stock

General Telephone Matters.

(Continued from page 367.)

of the commissioners, who had been investigating the matter was read and will be considered later on. The commissioners submitted an estimate of the cost of the manual and the automatic systems, which showed the total cost of operating a manual system to be $17,760, and the total cost of operating an automatic system to be $8,120. The manual system would require 43 employes and the automatic system only 14.

A delegation representing the union of Canadian Municipalities, the Manitoba Government, and others interested in the question of municipal and state ownership of telephone lines, waited on the Dominion Government April 27, and discussed the whole matter. The municipal delegation objected to the Government proposal to place telephones under the control of the Railway Commissioners, and the Manitoba Government delegation desired to have settled the question of the powers of the provinces to expropriate telephone lines within their borders.

The Bell Telephone Co. is applying at the current session of the Dominion Parliament for an act authorizing it to increase its capital from $10,000,000, as may be required from time to time by resolution of the shareholders, to $50,000,000. Counsel for the company informed the House of Commons Railway Committee, when the bill was before it, that the estimates of expenditure of the company during the current year was as follows:

New exchanges	$ 2,500,000
Underground service	900,000
Long distance service	700,000
Real estate	400,000
Total	$ 4,500,000

For the next ten years the company's estimate of expenditure was:

Subscribers and exchanges	$21,000,000
Underground conduits	33,000,000
Long distance service	11,000,000
Total	$65,000,000

The capital investment by provinces was given as:

Ontario	$ 5,500,000
Quebec	4,500,000
Manitoba	2,000,000
Western Provinces	300,000

The investment in Manitoba was greater in proportion to population than in any of the provinces. The rural lines, which had some 5,000 subscribers where they should have 50,000, were not profitable investments.

The Purchasing Agents' Guide

To the Manufacturers of & Dealers in Steam & Electric Railway, Marine, Grain Elevator, Express, Telegraph, Telephone and Contractors' Supplies, &c.

Accident Insurance
Accident & Guarantee Co. of Canada, ...Montreal.
Canadian Ry. Accident Ins. Co. .....Ottawa, Ont.

Aerated Waters
E. L. Drewry .....Winnipeg.

Air Brakes and Fittings
Canada Foundry Co.....Toronto.
Canadian Westinghouse Co.....Hamilton, Ont.

Air Compressors
N. J. Holden Co.....Montreal.

Ales
E. L. Drewry.....Winnipeg.

Angle Bars
Montreal Rolling Mills Co.....Montreal.

Axes
James Smart Mfg. Co.....Brockville, Ont.

Axe Steel
Montreal Steel Works.....Montreal.

Axles
James Hutton & Co.....Montreal.
B. M. Jones & Co., Inc.....Boston and New York.
Jas. W. Pyke & Co.....Montreal.
Rhodes, Curry & Co.....Amherst, N.S.

Beams
Hamilton Bridge Works.....Hamilton, Ont.

Bearings, Side
Chicago Railway Equipment Co.....Chicago, Ill.

Belting, Rubber
The Canadian Rubber Co. of Montreal.

Blankets and Bedding
The Hudson's Bay Co.....

Block Signals
General Railway Signal Co.....Buffalo, N.Y.

Boiler Compound
N. J. Holden Co.....Montreal.

Boiler Covering
Mica Boiler Covering Co.....Montreal.

Boilers
Babcock & Wilcox (Ltd).....Montreal.
Canada Foundry Co.....Toronto.
Hall Engineering Works.....Montreal.
Polson Iron Works.....Toronto.
Robb Engineering Co.....Amherst N.S.

Boilers, Internally Fired
Robb Engineering Co.....Amherst, N.S.

Boilers, Portable
Canada Foundry Co.....Toronto.
H. W. Petrie.....Toronto.
Robb Engineering Co.....Amherst, N.S.

Boilers, Stationary and Marine
Babcock & Wilcox (Ltd.).....Montreal.
Canada Foundry Co.....Toronto.
H. W. Petrie.....Toronto.
Robb Engineering Co.....Amherst, N.S.

Boilers, Steam
Babcock & Wilcox (Ltd.).....Montreal.
H. W. Petrie.....Toronto.

Boilers, Water Tube
Babcock & Wilcox (Ltd.).....Montreal.

Boiler Tubes
Jas. W. Pyke & Co.....Montreal.

Bolsters
Simplex Railway Appliance Co.....Montreal.

Bolts, Bridge
Canada Foundry Co.....Toronto.
Montreal Rolling Mills Co.....Montreal.
Toronto Bolt and Forging Co.....Toronto.

Bolts, Carriage and Machine
Toronto Bolt and Forging Co .....Toronto.

Bolts, Track
Canada Foundry Co.....Toronto.
Montreal Rolling Mills Co.....Montreal.
Toronto Bolt and Forging Co.....Toronto.

Box Car Loaders
W. H. C. Mussen & Co.....Montreal.

Brake Beams
Chicago Railway Equipment Co.....Chicago, Ill.
Simplex Railway Appliance Co.....Montreal.

Brake Shoes
American Brake Shoe& F'dry Co.,....Mahwah N.J.
Canadian Iron and Foundry Co.....Montreal.
N. J. Holden Co.....Montreal.

Brass and Copper Cloth
The B. Greening Co.....Hamilton, Ont.

Bridge Bolts
Hamilton Bridge Works..... Hamilton, Ont.

Bridge Numbers
Acton Burrows Limited.....Toronto.

Bridge Rods
Hamilton Bridge Works.....Hamilton, Ont.

Bridges
Canada Foundry Co.....Toronto.
Canadian Bridge Co .....Walkerville, Ont.
Dominion Bridge Co.....Montreal.
Hamilton Bridge Works.....Hamilton, Ont.
Steel Concrete Co. (Ltd.).....Montreal.

Bumping Posts
Mechanical Mfg. Co..... Chicago, Ill.

Buoy Lighting
Safety Car Heating and Lighting Co....NewYork.
Willson Gas Buoy Co.....Ottawa, Ont.

Cables, Electric and Feeder
E. F. Phillips Electrical Works, Ltd.,....Montreal.
The Wire and Cable Co.....Montreal.

Caboose Heaters
Geo. R. Prowse.....Montreal.

Calendars
Rolph & Clark (Ltd.).....Toronto.

Car Castings
American Brake Shoe & F'dry Co. ....Mahwah, N.J.
Canadian Iron and Foundry Co.....Montreal.

Car Closets
Duner Co.....Chicago, Ill.

Car Heating
Wm. C. Baker .....New York.
Safety Car Heating and Lighting Co.....NewYork.

Car Jacks
F. H. Hopkins & Co.....Montreal.
W. H. C. Mussen & Co.....Montreal.

Car Kitchen Equipments
Geo. R. Prowse.....Montreal.

Car Lighting
Safety Car Heating and Lighting Co.....NewYork.

Car Movers
N. J. Holden Co.....Montreal.
F. H. Hopkins & Co.....Montreal.
W. H. C. Mussen & Co.....Montreal.

Car Replacers
Alexander Car Replacer Mfg. Co.....Scranton, Pa.
N. J. Holden Co.....Montreal.
F. H. Hopkins & Co.....Montreal.

Cars
American Palace Car Co. ....New York & Toronto.
Canada Car Co.....Montreal.
Crossen Car Mfg. Co.....Cobourg, Ont.
Dominion Steel Car Co.....Montreal.
Rhodes, Curry & Co.....Amherst, N.S.

Car Ranges
Geo. R. Prowse.....Montreal.

Car Upholstery
N. J. Holden Co.....Montreal.

Car Windows
O. M. Edwards .....Syracuse N.Y.

Castings
Crossen Car Mfg. Co.....Cobourg, Ont.

Castings, Brass
Canadian Bronze Co.....Montreal.
Canadian Iron and Foundry Co.....Montreal.
Kerr Engine Co .....Walkerville, Ont.
St. Thomas Brass Co.....St. Thomas, Ont

Castings, Iron
Canadian Iron and Foundry Co.....Montreal.
Kerr Engine Co.....Walkerville Ont.

Castings, Iron and Steel
American Brake Shoe & F'dry Co.....Mahwah, N.J.

Castings, Steel
Canada Car Co.....Montreal.
Canadian Iron and Foundry Co.....Montreal.
W. Kennedy & Sons, Ltd.....Owen Sound, Ont.
Montreal Steel Works..... .....Montreal
Rhodes, Curry & Co.....Amherst, N.S.

Cast-Steel Hammers
American Brake Shoe & F'dry Co.... Mahwah, N.J.

Cast-Steel Track Tools
American Brake Shoe & F'dry Co.....Mahwah, N.J.

Cast-Steel Wrenches
American Brake Shoe & F'dry Co.....Mahwah, N.J.

Cement Machinery
Jas. W. Pyke & Co.....Montreal.

Chains
B. J. Coghlin & Co.....Montreal

Chimneys
Steel Concrete Co. (Ltd.).....Montreal.

Coal Haulage Ropes
The B. Greening Co.....Hamilton, Ont.

Coal Storage Plants
Steel Concrete Co. (Ltd.).....Montreal.

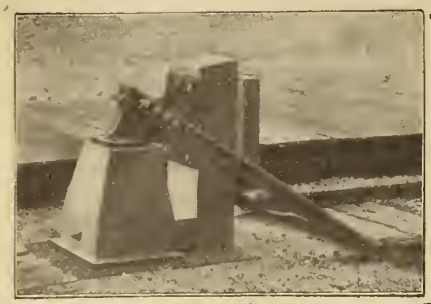
Coil Spring Wire
New Brunswick Wire Fence Co.... Moncton, N.B.

Compasses
J. Leckie Limited.....Toronto.

Concrete Mixers and Rock Crushers
Goold, Shapley & Muir Co.....Brantford, Ont.
E. F. Dartnell.....Montreal.
F. H. Hopkins & Co.....Montreal.
W. H. C. Mussen & Co.....Montreal.
Toronto Pressed Steel Co..... Toronto.

Concrete Pipe
Steel Concrete Co. (Ltd.).....Montreal.

Contractors
Hamilton Bridge Works.....Hamilton, Ont.
A. B. Ormsby (Limited).....Toronto.



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Robb Engineering Co.....Amherst, N.S

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Engines, Gasoline
Canadian Fairbanks Co.....Montreal.
Goold, Shapley & Muir Co .....Brantford, Ont.
Ontario Wind Engine and Pump Co. .... Toronto.

Engines, Hoisting
M. Beatty & Sons.....Welland, Ont.

Engines, Stationary and Marine
Canada Foundry Co.....Toronto.
H. W. Petrie.....Toronto.
Poison Iron Works.....Toronto.
Robb Engineering Co.....Amherst, N.S.

Engraving
Rolph & Clark (Ltd.).....Toronto.

Engraving (Copper and Steelplate)
Rolph & Clark (Ltd.).....Toronto.

Excavators
Vulcan Iron Works.....Toledo, Ohio.

Express Office Signs
Acton Burrows Limited.....Toronto.

Feedwater Heaters
Canadian Fairbanks Co.....Montreal.
H. W. Petrie.....Toronto.
Robb Engineering Co.....Amherst, N.S.

Fencing
Canada Foundry Co.....Toronto.
Canadian Steel and Wire Co.....Hamilton, Ont.
McGregor, Banwell Fence Co....Walkerville, Ont.
New Brunswick Wire Fence Co....Moncton, N.B.
Owen Sound Wire Fence Co....Owen Sound, Ont.
Page Wire Fence Co.....Walkerville, Ont.

Fencing and Gates
New Brunswick Wire Fence Co.....Moncton, N.B.

Fence Staples
New Brunswick Wire Fence Co....Moncton, N.B.

Fire Brick
W. H. C. Mussen & Co.....Montreal.

Fire Escapes
The G. B. Meadows Wire, etc., Co.....Toronto.

Fireproof Building Material
A. B. Ormsby Limited.....Toronto.

Flags
The Hudson's Bay Co.....

Flour
The Hudson's Bay Co.....

Forgings
Canada Car Co.....Montreal.
Crossen Car Mfg. Co.....Cobourg, Ont.
General Railway Signal Co.....Buffalo, N.Y.
Standard Steel Works.....Philadelphia, Pa.

Gas Buoys
Willson Gas Buoy Co.....Ottawa.

Gas Pipe (Cast Iron)
Gartshore-Thompson Pipe & F'dry Co., Hamilton.

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Canada Foundry Co.....Toronto.
McGregor, Banwell Fence Co....Walkerville. Ont.
New Brunswick Wire Fence Co....Moncton, N.B.
Owen Sound Wire Fence Co....Owen Sound, Ont.
Page Wire Fence Co.....Walkerville, Ont.

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W. Kennedy & Sons (Ltd.)....Owen Sound, Ont.

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John S. Metcalfe Co.....Chicago, Ill.

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The Hudson's Bay Company.....

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James Smart Mfg. Co.....Brockville, Ont.

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Crossen Car Mfg. Co.....Cobourg, Ont.
F. H. Hopkins & Co.....Montreal.
W. H. C. Mussen & Co.....Montreal.
Toronto Pressed Steel Co.....Toronto.

Hardware
The Hudson's Bay Company.....

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Headlinings
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Duner Co.....Chicago, Ill.

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The Canadian Rubber Co. of Montreal.

Hose, Fire
The Canadian Rubber Co. of Montreal

Hose, Suction
The Canadian Rubber Co. of Montreal.

Hydrants
Kerr Engine Co.....Walkerville, Ont.

Illustrations
Acton Burrows Limited.....Toronto.

Inspection Cars
Canada Cycle and Motor Co...Toronto Junc. Ont.

Inspections
R. W. Hunt & Co.....Montreal.
H. Jarvis & Co.....,Chicago, Ill.

Instruments, Surveying and Engineering
Eugene Dietzgen Co.....New York.
James Foster.....Toronto.

Interlocking and Signalling
General Railway Signal Co.....Buffalo, N.Y.

Interlocking Signals
Montreal Steel Works.....Montreal.

Iron
A. C. Leslie & Co.....Montreal.

Iron Fencing
The G. B. Meadows Wire, etc., Co.....Toronto.

Iron, Pig
John McDougall & Co.....Montreal.

Iron Signs
Acton Burrows Limited.....Toronto.

Jacks
James Smart Mfg. Co.....Brockville, Ont.

Japans
McCaskill, Dougall & Co.....Montreal.

Journal Bearings
Canada Foundry Co.....Toronto.
Canadian Bronze Co.....Montreal.
Crossen Car Mfg. Co.....Cobourg, Ont.
Kerr Engine Co.....Walkerville, Ont.
Jas. W. Pyke & Co.....Montreal.
St. Thomas Brass Co.....St. Thomas Ont.

Journal Boxes
N. J. Holden Co.....Montreal.

Lager Beer, &c.
E. L. Drewry.....Winnipeg.

Lamps, Incandescent
Canadian Westinghouse Co.....Hamilton, Ont.

Lamps and Lanterns
The Hudson's Bay Company.....
The Hiram L. Piper Co.....Montreal.
N. L. Piper Railway Supply Co.....Toronto.

Lathes
The John Bertram Sons Co.....Dundas, Ont.
H. W. Petrie.....Toronto.

Launches
Poison Iron Works.....Toronto.

Lights, Contractors' and Wrecking
F. H. Hopkins & Co.....Montreal.
W. H. C. Mussen & Co.....Montreal.

Lithographing
Rolph & Clark (Ltd.).....Toronto.

Locomotive Driver Brake Shoe
American Brake Shoe & F'dry Co...Mahwah, N.J.
Canadian Iron and Foundry Co.....Montreal.

Locomotive Lagging and Covering
Canadian Fairbanks Co.....Montreal.

Locomotives (Compressed Air)
Canadian Locomotive Co.....Kingston, Ont.
Locomotive and Machine Co. of Montreal.

Locomotives (Electric)
Canada Foundry Co.....Toronto
Locomotive and Machine Co. of Montreal.

Locomotives (Logging)
Canadian Locomotive Co.....Kingston. Ont.

Locomotives (Rack)
Canadian Locomotive Co.....Kingston, Ont
Locomotive and Machine Co. of Montreal.

Locomotives (Steam)
Canada Foundry Co.....Toronto.
Canadian Locomotive Co.....Kingston, Ont.
The W. H. Kelson Co.....Montreal.
Locomotive and Machine Co. of Montreal.

Locomotive Stack Netting
The G. B. Meadows Wire, etc., Co.....Toronto.

Machine Tools
W. Abbott.....Montreal.
Canadian Fairbanks Co.....Montreal.
H. W. Petrie.....Toronto.

Machine Screws, Set Cap and Planer
John Morrow Machine Screw Co.....Ingersoll.

Machinery, Marine
Sheriffs Mfg. Co.....Milwaukee, Wis.

Machinery Repairs, Marine
Sheriffs Mfg. Co.....Milwaukee, Wis.

Manganese Steel Castings
Montreal Steel Works.....Montreal.

Manhole Frames and Covers
American Brake Shoe & F'dry Co...Mahwah, N.J.
Canadian Iron and Foundry Co..... Montreal.

Maps
Rolph & Clark (Ltd.).....Toronto.

Mats and Matting
The Canadian Rubber Co. of Montreal.

Metals
A. C. Leslie & Co. ..... Montreal.

Metal Studding
A. B. Ormsby Limited ..... Toronto.

Metal Windows
A. B. Ormsby Limited ..... Toronto.

Milepost Numbers
Acton Burrows Limited ..... Toronto.

Milling Cutters
W Abbott ..... Montreal.

Milling Machines
The John Bertram Sons Co. ..... Dundas, Ont.
H. W. Petrie ..... Toronto.

Mills, Boring and Turning
The John Bertram Sons Co. ..... Dundas, Ont.
H. W. Petrie ..... Toronto.

Mill Tools and Supplies
J. A. Dawson & Co. ..... Montreal.

Motor Cars
Canada Cycle & Motor Co. ... Toronto Junc., Ont.

Nickel
The Orford Copper Co. ..... New York.

Nickel for Nickel Steel
The Orford Copper Co. ..... New York.

Numbers
Acton Burrows Limited ..... Toronto.

Nut Locks
Jones Positive Nut Lock Co. ..... Chicago, Ill.
Positive Lock Washer Co. ..... Newark, N.J.

Nuts, Cold Pressed
John Morrow Machine Screw Co. ..... Ingersoll.

Nuts, Square and Hexagon
Canada Foundry Co. ..... Toronto.
Montreal Rolling Mills Co. ..... Montreal.
Toronto Bolt and Forging Co. ..... Toronto.

Oakum
The Hudson's Bay Company ..... Montreal.
McKenzie & Co. ..... Montreal.

Office Desks
Canadian Office & School Furniture Co., Preston, Ont.

Office Fittings
Canadian Office & School Furniture Co., Preston, Ont.

Office Railings
The G. B. Meadows Wire, etc., Co. ..... Toronto.

Office Signs
Acton Burrows Limited ..... Toronto.

Oils
Canadian Oil Co. ..... Toronto.
Galena Signal Oil Co., Franklin, Pa., and Toronto.

Packing
The N. L. Piper Railway Supply Co. ..... Toronto.

Packing, High Pressure Sheet
The Canadian Rubber Co. of Montreal.

Packing, Piston
The Canadian Rubber Co. of Montreal

Paints
Canadian Oil Co. ..... Toronto.

Paints, Damp Resisting
E. F. Dartnell ..... Montreal.

Passenger Cars
American Palace Car Co. . New York and Toronto.

Pinch Bars
The N. L. Piper Railway Supply Co. ..... Toronto.

Pipe and Pipe Coverings
W. C. Baker ..... New York.

Pipe Covering
Canadian Fairbanks Co. ..... Montreal.
Mica Boiler Covering Co. ..... Montreal.

Pipe Stocks
Butterfield & Co. ..... Rock Island, Que.

Piston Rods
B. M. Jones & Co., Inc. ... Boston and New York.

Planers
The John Bertram Sons Co. ..... Dundas, Ont.
H. W. Petrie ..... Toronto.

Ploughs, Contractors'
W. H. C. Mussen & Co. ..... Montreal.
Toronto Pressed Steel Co. ..... Toronto.

Pneumatic Tools
N. J. Holden Co. ..... Montreal.

Porter
E. L. Drewry ..... Winnipeg.

Portable Boilers
Babcock & Wilcox (Ltd.) ..... Montreal.
Canada Foundry Co. ..... Toronto.
Robb Engineering Co. ..... Amherst, N.S.

Power Houses
Steel Concrete Co, (Ltd.) ..... Montreal.

Printing
The Hunter, Rose Co. ..... Toronto.
The Mail Job Printing Company ..... Toronto.

Propeller Wheels
W Kennedy & Sons (Ltd.) ..... Owen Sound, Ont.
Sheriffs Manufacturing Co. ..... Milwaukee, Wis.

Pumps
Canadian Fairbanks Co. ..... Montreal.
Canada Foundry Co. ..... Toronto.
Goold, Shapley & Muir Co. ..... Brantford, Ont.
James Smart Mfg. Co. ..... Brockville, Ont.

Pumps (Centrifugal)
M. Beatty & Sons ..... Welland, Ont.

Punching and Shearing Machines
The John Bertram Sons Co. ..... Dundas, Ont.

Rail Benders, Roller
F. H. Hopkins & Co. ..... Montreal.
Montreal Steel Works ..... Montreal.

Rails (new)
Drummond, McCall & Co. ..... Montreal.
F. H. Hopkins & Co. ..... Montreal.
J. J. Gartshore ..... Toronto.

Rails (for relaying)
F. H. Hopkins & Co. ..... Montreal.
J. J. Gartshore ..... Toronto.
T. A. Morrison & Co. ..... Montreal.
W. H. C. Mussen & Co. ..... Montreal.
Jas. W. Pyke & Co. ..... Montreal.

Railway Bridges
Hamilton Bridge Works ..... Hamilton, Ont.

Railway Interlocking
General Railway Signal Co. ..... Buffalo, N.Y.

Rail Joints
N. J. Holden Co. ..... Montreal.

Railway Pile Drivers
F. H. Hopkins & Co. ..... Montreal.
W. H. C. Mussen & Co. ..... Montreal.

Railway Signalling
General Railway Signal Co. ..... Buffalo, N.Y.

Railway Spikes
F. H. Hopkins & Co. ..... Montreal.

Railway Supplies
J. A. Dawson & Co. ..... Montreal.
Canadian Fairbanks Co. ..... Montreal.
The W. H. Kelson Co. ..... Montreal.
The Hiram L. Piper Co. ..... Montreal.
The N. L. Piper Railway Supply Co. ..... Toronto.

Reamers
W. Abbott ..... Montreal.
Butterfield & Co. ..... Rock Island, Que.

Refrigerators
Geo. R. Prowse ..... Montreal.

Rivets, Boiler, Bridge and Structural
Canada Foundry Co. ..... Toronto.
Montreal Rolling Mills Co. ..... Montreal.
Toronto Bolt and Forging Co. ..... Toronto.

Rolled Wheels
Standard Steel Works ..... Philadelphia, Pa.

Rolls, Plate Bending
The John Bertram Sons Co. ..... Dundas, Ont.

Roofers
A. B. Ormsby Limited ..... Toronto.

Roof Trusses
Canada Foundry Co. ..... Toronto.
Canadian Bridge Co. ..... Walkerville. Ont.
Dominion Bridge Co. ..... Montreal.
Hamilton Bridge Works ..... Hamilton, Ont.

Rope
F. H. Hopkins & Co. ..... Montreal.
The Hudson's Bay Co. .....
J. Leckie Limited ..... Toronto.

Rotary Snow Ploughs
Crossen Car Mfg. Co. ..... Cobourg, Ont.

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Steel Concrete Co. (Ltd.) ..... Montreal.

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O. M. Edwards ..... Syracuse, N. Y.

Sash Locks
O. M. Edwards ..... Syracuse, N.Y.

Saw Steel
Montreal Steel Works ..... Montreal.

Scrapers (Wheel and Drag)
F. H Hopkins & Co. ..... Montreal.
W. H. C. Mussen & Co. ..... Montreal.
Toronto Pressed Steel Co. ..... Toronto.

Screw Plates
Butterfield & Co. ..... Rock Island, Que.

Screws, Coach and Lag
Montreal Rolling Mills Co. ..... Montreal.
Toronto Bolt and Forging Co. ..... Toronto.

Semaphore Arms
Acton Burrows Limited ..... Toronto.

Semaphores
The N. L. Piper Railway Supply Co. ..... Toronto.

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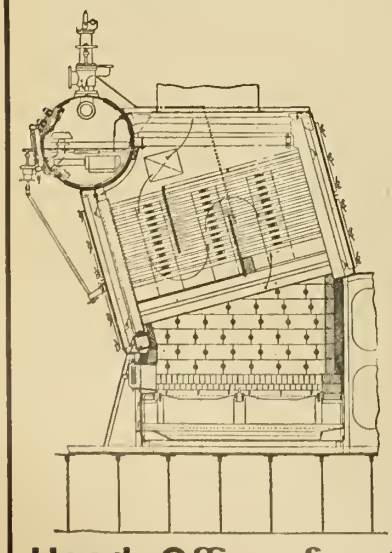
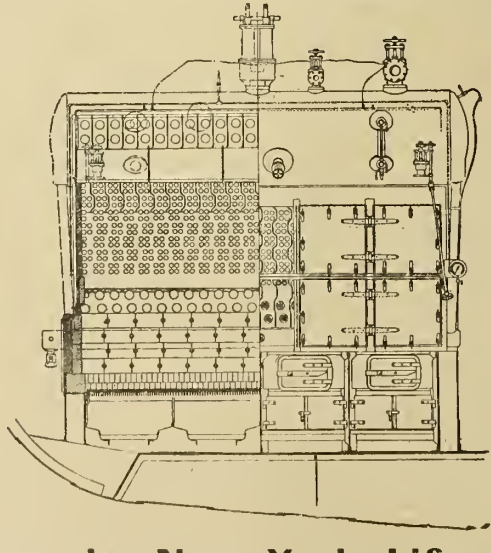
Gartshore-Thompson Pipe & F'dry Co. . Hamilton.





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See Purchasing Agents' Guide on page 433

See Alphabetical Index to Advertisements on page 405.

THE

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TORONTO, CANADA, JULY, 1906.

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Orders by the Railway Commissioners.

The following orders have been issued by the Board of Railway Commissioners:

1021. Mar. 27.—Authorizing the C.P.R. to take and use certain lands of the G.T.R. in Ferris tp., Nipissing District, Ont.

1022. Mar. 20.—Granting permission to the G.T.R. to acquire lands in Notre Dame de Grace West, Montreal, for the purposes of yard extension.

1023. April 3.—Approving the location plans for the Churchbridge branch of the Manitoba and Northwest Ry.

1024. April 3.—Amending order of Mar. 27, authorizing the construction of siding to the Ogilvie Flour Milling Co.'s premises, Montreal.

1025. April 4.—Sanctioning location of the Essex Terminal Ry. in Sandwich West tp., Ont., station 0 to station 193.42.

1026. April 4.—Approving location plans of James Bay Ry. through Rama tp.

1027. April 6.—Sanctioning deviation from previously constructed line of the C.P.R. from Piapot, mileage 66.5, to Maple Creek, mileage 81.2, Sask.

1028. April 9.—Approving by-law of Montreal Park and Island Ry., respecting the giving of tickets to passengers on payment of fares, and providing for the ejection of passengers refusing to pay fares or refusing to produce tickets.

1029. Mar. 7.—Authorizing the G. T.R. to extend spur track on St. Clair Avenue, Toronto Junction, Ont., to the premises of Gunn's Limited.

1030. April 11.—Authorizing the Toronto City Council to lay sewer pipes under the C.P.R. tracks on Trinity St., Toronto.

1031. April 9.—Authorizing the Toronto Ry. to lay a 2 in. pipe for conveying compressed air under the G.T.R. tracks at Sunnyside, Toronto, in connection with the air brake equipment on the Mimico Division, Toronto and York Radial Ry.

1032. April 10.—Granting permission to the St. Maurice Valley Ry. to construct a bridge across the gorge of the St. Maurice River, between Shawinigan Falls, Que., according to plans filed.

1033. April 10.—Granting permission to the St. Maurice Valley Ry. to construct a bridge across the St. Maurice Falls, at Gros Falls, according to plans filed.

1034. April 12.—Approving by-laws 1 to 15 of the Quebec Ry., Light and Power Co.

1035. April 11.—Authorizing the Quebec, New Brunswick and Nova Scotia Ry. to dispense with notice, under sec. 281, so far as it affects the route of its line south of St. Lawrence River.

1036. April 16.—Sanctioning the location of the G.T. Pacific Ry. in the District of North Alberta, mileage 56 to mileage 102.

1037. April 20.—Authorizing the Toronto and Niagara Power Co. to maintain its wires for the transmission of electrical power over the tracks of the Toronto, Hamilton and Buffalo Ry., at the escarpment, Hamilton, and at Vinemount, Ont.

1038. April 11.—Authorizing the C.P.R. to operate trains across the tracks of the G.T.R. at Alliston, Ont.

FRANK J. WATSON,
Division Freight Agent, Grand Trunk Railway, and President Canadian Freight Association.

1039. April 21.—Granting permission to the Amaranth Telephone Co-operative Association to maintain a telephone line across the C.P.R. at Grand Valley, Ont.

1040. April 20.—Authorizing the C.P.R. to construct a branch line in New Westminster, B.C.

1041. April 20.—Authorizing the G.T.R. to divert Lake Shore Road.

1042. April 20.—Sanctioning location plans for the G.T. Pacific in Thunder Bay District, Ont., from mileage 80.110 to mileage 113.468; and in Rainy River District, from mileage 108.094 to mileage 179.227.

1043. April 20.—Authorizing the St. Maurice Valley Ry. to construct a bridge across the headrace of the Shawinigan Water and Power Co., Shawinigan Falls, Que., according to plans filed.

1044. April 24.—Extending the time within which the Salmon River and Northern Ry. is authorized to use the crossing authorized by the order of Dec. 1, 1905.

1045. April 25.—Approving deviation from the already constructed line of the C.P.R. between Kincorth and Walsh, Sask., 10 miles.

1046. April 24.—Sanctioning location plans of the James Bay Ry. in Neelon tp., Nipissing District, Ont., for 12.35 miles.

1047. April 25.—Authorizing the Brandon, Saskatchewan and Hudson's Bay Ry. to construct its railway across six streets in Boissevain, Man.

1048. April 24.—Approving location plans for the Quebec, New Brunswick and Nova Scotia Ry., from the boundary between 1st and 2nd range, St. Charles, mileage 62.61 to the Great Northern Ry. near Garneau Junction, Que., mileage 79.7.

1049. April 25.—Sanctioning deviation from constructed line of the C.P. R. from two miles east of Tompkins to five miles east of Crane Lake, Sask., 10 miles.

1050. April 27.—Granting permission to the Toronto and Niagara Power Co., to maintain its wires for the transmission of electrical power over the G. T.R. at Davenport Road, Toronto; Bronte, Stoney Creek, and near Allanburg, Ont.

1051. April 26.—Approving plans for piers and abutments for bridge over the North Saskatchewan River at Fort Saskatchewan, Sask., for the Canadian Northern Ry.

1052. April 27.—Authorizing the C.P.R. to construct a branch line in Westmount, Que.

1053. April 26.—Sanctioning the construction of four sidings and an extension of its existing branch line to the property of the Mond Nickel Co., Denison tp., Algoma District, by the C.P.R.

1054. April 26.—Sanctioning plans for piers and abutments for a bridge over the South Saskatchewan River, on the Prince Albert branch of the Canadian Northern Ry.

1055. April 26.—Approving plans for piers and abutments for a bridge over the North Saskatchewan River near Battleford, Sask., for the Canadian Northern Ry.

1056. April 26.—Authorizing the Papineauville Electric Co. to carry its wires across the C.P.R. at Papineauville, Que.

1057. April 26.—Granting permission to the Welland Lime Co. to carry a pipe for natural gas under the G.T.R. tracks in the

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CHARLES MILLER,

PRESIDENT.

1st concession of Wainfleet tp., Welland county, Ont., upon conditions set forth.

1058. April 27.—Authorizing the construction of a branch line from Darlingford for 5.9 miles, for the Manitoba, South-Western Colonization Ry. (C.P.R.)

1059. April 27.—Authorizing the construction of a spur line from Calgary, Alta., to the premises of the Western Milling Co., by the C.P.R., as lessee of the Calgary and Edmonton Ry.

1060. April 27.—Granting permission to the Toronto City Council to lay sewer pipes under the C.P.R. tracks at Poplar Plains and Davenport Road, Toronto, upon terms and conditions agreed to.

1061. April 26.—Sanctioning location of the G.T. Pacific Ry. from the C.P.R. Prince Albert branch, sec. 9, tp. 36, r. 5, w. 3rd m., westerly for 34.541 miles.

1062. April 27.—Amending the order of Nov. 16, 1904, granting authority to the C.P.R. to acquire certain lands in Toronto for railway purposes.

1063. April 30.—Authorizing the opening for traffic of a diversion of the Esquimalt and Nanaimo Ry. at Ladysmith, B.C.

1064. April 17.—Directing the G.T.R. to construct a branch line on the property of the Erie Realty Co., Toronto.

1065. Nov. 8, 1905.—Authorizing the C.P.R. to construct certain branch lines to the premises of the Morse Soap Factory and William Davies & Co., Toronto.

1066. April 30.—Granting permission to the C.P.R. to pass over the drawbridge over the Trent Valley Canal at Ashburnham, Ont., without stopping.

1067 and 1068. April 30.—Authorizing the Brantford Electric and Operating Co. to carry its wires across the line of the Toronto, Hamilton and Buffalo Ry., in Brantford, Ont.

1069. April 30.—Sanctioning location of the G.T. Pacific Ry. between tp. 48 n., r. 14 w. and tp. 50 n., r. 19 w. 4th meridian, North Alberta, 35.61 miles.

1070 May 5—Sanctioning location of the Klondike Mines Ry. from Grand Forks to Sulphur Springs, Yukon Territory.

1071. May 5.—Sanctioning location of the deviation of the Klondike Mines Ry. between Dawson City and Grand Forks, Yukon Territory.

1072. Mar. 20.—Authorizing the C.P.R. to acquire land at Ottawa, Ont., for station, yard room and other purposes.

1073 and 1074. May 9.—Authorizing the C.P.R. to connect its tracks with the temporary tracks of the Quebec Harbor Commissioners.

1075. May 3.—Authorizing the Northern Extension Ry. to cross the tracks of the C.P.R. west of Winnipeg, Man.

1076. May 12.—Granting permission to the C.P.R. to construct a spur line across Higgins Avenue, Winnipeg, Man.

1077. May 12.—Authorizing the G.T.R. to construct a spur line in Hespeler, Ont., to the Clark Demill Co.'s premises.

1078. May 12.—Granting permission to the G.T.R. to construct two sidings in Collingwood, Ont., to the premises of the Collingwood Shipbuilding Co.

1079. May 11.—Authorizing the carrying of a natural gas main under the G.T.R. tracks at Port Colborne, Ont.

1080. May 12.—Granting permission to the G.T.R. to construct a siding to the premises of the London Machine and Tool Co., Hamilton, Ont.

1081. April 11.—Authorizing the Midland Ry. of Manitoba to carry its tracks across the Canadian Northern Ry., near Roland, Man., upon the usual terms and conditions as to the putting in of a diamond crossing, the installation of interlocking plant, etc.

1082. May 12.—Granting permission to the C.P.R. to construct a siding in Hochelaga, Que., to the premises of the Union Abattoir Co.

1083. May 3.—Authorizing the C.P.R. to use certain lands belonging to the G.T.R. in Ferris tp., Algoma District, Ont.

1084. May 12.—Granting permission to the C.P.R. to operate its trains across the G.T.R. tracks at Utopia, Ont.

1085. April 11.—Authorizing the Midland Ry. of Manitoba to carry its tracks across the Canadian Northern Ry. at Carman, Man., upon the usual terms and conditions.

1086. May 10.—Granting permission to the Ontario Power Co. to maintain its wires for the transmission of electrical power over the tracks of the G.T.R., the Wabash Rd., the Michigan Central Rd., the Canada Southern Ry., the Niagara, St. Catharines and Toronto Ry., and the Niagara Falls Park and River Ry.

1087. May 15.—Approving of deviation of located line of the G.T.R. Midland branch, Lindsay, Ont.

1088 to 1100 inclusive. April 4.—Giving permission to the Bell Telephone Co., to carry its lines across railway tracks at various points in Ontario and Quebec, and setting out standard conditions upon which permission is granted.

1101. May 14.—Approving deviation of existing line of the C.P.R. leased line, the Tillsonburg, Lake Erie and Pacific Ry., from Tillsonburg, Ont., northerly to mileage 4.8.

1102. May 14.—Approving location plans for the Vancouver, Victoria and Eastern Ry. from Hope to Coquitlam Summit, B.C., 37.764 miles.

1103. May 14.—Authorizing the C.P.R. to construct a branch line from the White Mud River spur, northerly for 4.2 miles.

1104. April 11.—Granting permission to the Chatham, Wallaceburg and Lake Erie Ry. to construct its line across the C.P.R. at two points in Chatham, Ont., upon the usual terms and conditions.

1105. May 15.—Sanctioning a proposed deviation upon the G.T.R. Midland branch, for about 7,000 ft. in South Orillia tp., Ont.

1106. May 16.—Dismissing the application of the York tp. Council, asking for the rescinding or varying of orders passed by the Railway Committee of the Privy Council, 1891 and 1893, respecting level crossings in Toronto and York tps.

1107. May 15.—Granting permission to D. Rothwell to carry telephone wires over the tracks of the G.T.R. in Innisfil tp., Simcoe county, Ont.

1108. May 16.—Sanctioning plans for new abutments for the bridge over Napier St., Iberville, Que., for the C.P.R.

1109. May 16.—Extending time in re application of the Ontario Power Co. for use of power wires over the G.T.R. tracks, fixed in order of Feb. 17, 1906.

1110. May 15.—Granting leave to the North American Telegraph Co. to carry its wires across the G.T.R. tracks near West Huntington, Ont.

1111. May 16.—Approving location plans for the James Bay Ry. from Hawkesbury West, easterly for 28.07 miles.

1112. May 17.—Sanctioning the location of the Kettle River Valley Ry. from Grand Forks to Gloucester Creek, B.C.

1113. May 17.—Sanctioning location plans of the Central Ry. from near River des Prairies to St. Hermas, Que., 26 miles.

1114. May 11.—Granting leave to the G.T.R. to construct a branch line to the premises of Murray & Laidlaw, Toronto.

1115. May 22.—Granting leave to the Toronto & York Radial Ry. to carry its tracks over the G.T.R. by means of an overhead bridge north of Queen St., Newmarket, Ont.

(Continued on page 399.)

July Birthdays.

Many happy returns of the day to—

J. H. Black, Superintendent and Traffic Manager Temiskaming and Northern Ontario Ry., North Bay, Ont., born near Smith's Falls, Ont., July 8, 1874.

D. E. Blair, Assistant Superintendent Montreal St. Ry., Montreal, born at St. Thomas, Montmagny, Que., July 25, 1877.

D. W. Campbell, Manager Elder Dempster & Co.'s steamers, Montreal, born there July 15, 1860.

D. A. C. Coleman, chief clerk to General Superintendent Central Division C.P.R, Winnipeg, born at Carleton Place, Ont., July 9, 1879.

Geo. Collins, Receiver and Manager Central Ontario Ry., Trenton, Ont., born at Kingston, Ont., July 20, 1860.

D. D'E. Cooper, Canadian Freight Agent Lehigh Valley Rd., Toronto, born at Buffalo, N.Y., July 8, 1862.

John Corbett, General Foreign Freight Agent C.P.R., Montreal, born in Lanarkshire, Scotland, July 19, 1863.

E. J. Coyle, Assistant General Passenger Agent C.P.R., Vancouver, B.C., born at Stayner, Ont., July 23, 1870.

S. E. Dewey, Travelling Freight Agent G.T.R., Hamilton, Ont., born at Beckenham, Kent, Eng., July 4, 1879.

J. F. Dolan, City Passenger and Ticket Agent Richelieu and Ontario Navigation Co., Montreal, born at Kingston, Ont., July 1, 1868.

G. C. Farish, Assistant Superintendent Yarmouth Division, Halifax and Southwestern Ry., Yarmouth, N.S., born there July 13, 1881.

W. R. Haldane, District Freight Agent C.P.R., Detroit, Mich., born at Galashiels, Scotland, July 6, 1867.

J. H. Hanna, ex-Division Freight Agent G.T.R., at Hamilton, Ont., now at Calgary, Alta., born at London, Ont., July 27, 1867.

R. K. Harris, Chief Engineer Orford Mountain Ry., Kingsbury, Que., born at Maitland, Ont., July 20, 1866.

A. D. Huff, Commerical Agent G.T.R., Pittsburg, Pa., born at Chatham, Ont., July 17, 1866.

C. A. Jaques, General Manager Merchants-Montreal Line Steamers, Montreal, born there July 15, 1849.

D. T. Lawrence, Manager National Despatch-Great Eastern Line, Buffalo, N.Y., born at Marysville, Ohio, July 20, 1871.

J. M. Lyons, General Passenger and Ticket Agent I.C.R., Moncton, N.B., born at Halifax, N.S., July 1, 1850.

T. J. Maguire, Accountant Quebec Central Ry., Sherbrooke, Que., born at Quebec, July 31, 1860.

C. N. Monsarrat, Engineer of Bridges C.P.R., Montreal, born there July 2, 1871.

R. Preston, Master Mechanic C.P.R., Toronto, born there July 28, 1863.

J. E. Quick, General Baggage Agent G.T.R., Toronto, Ont., born at Richmond, Ontario Co., N.Y., July 10, 1851.

R. Reid, National Transcontinental Railway Commissioner, Ottawa, born at London, Ont., July 28, 1855.

W. C. Ross, Mechanical Foreman I.C.R., Richmond, N.S., born at Quebec, July 26, 1863.

G. G. Ruel, Assistant Solicitor Canadian Northern Ry., Toronto, born at St. John, N.B., July 5, 1866.

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P. E. Ryan, Secretary National Transcontinental Railway Commission, Ottawa, born there, July 26, 1876.

F. W. Snider, Superintendent Atlantic Division C.P.R. telegraphs, St. John, N.B., born in Halton Co., Ont., July 14, 1854.

T. Tait, Chairman Board of Railway Commissioners for Victoria, Melbourne, Australia, born at Melbourne, Que., July 24, 1864.

How Canada Regulates Its Railways.

By A. C. Killam Chief Commissioner Board of Railway Commissioners

The Board of Railway Commissioners for Canada exercises authority over the railway companies which are subject to the jurisdiction of the general Parliament of Canada, except Government railways. We have a federal constitution under which a general Parliament exercises legislative authority over the whole Dominion of Canada, and Provincial Legislatures over the different provinces. In the division of legislative powers between these bodies, the Parliament of Canada is empowered to make laws upon the subject of railways connecting one province with another or extending beyond the limits of any province and any others which are declared by the Parliament of Canada to be maintained for the general advantage of Canada, or for the advantage of two or more of the provinces.

Under this class of subjects the Parliament of Canada has incorporated many companies to build and operate railways and has authorized such building and operation usually by companies, but in some instances by the Government of Canada. It has also in many cases declared railways built under authority of Provincial Legislatures to be works for the general advantage of Canada and has thereafter assumed legislative authority over them. Although the establishment of courts of civil and criminal jurisdiction and proceedings in civil matters are subjects of legislation by Provincial Legislatures, the Parliament of Canada has special power to provide for the establishment of additional courts for the better administration of the laws of Canada.

The Board of Railway Commissioners was constituted by the Railway Act of 1903, which came into force on Feb. 1, 1904. The powers and duties assigned to the Board are numerous and of varied character. Before building is begun, location plans must be approved by the Board. Leave to cross highways or other railways must be given by the Board, and the Board must determine what precaution, if any, shall be taken at such crossings, and whether they shall be made at grade or overhead or underneath. Lines or wires for telegraphs, telephones, for the conveyance of light, heat, power or electricity cannot be carried across railways without the leave of the Board, which establishes the precautions to be observed. Before a railway is opened for traffic it must be inspected by an engineer, and its opening authorized by the Board. Naturally the Railway Act deals with many details to be observed by railway companies. The Board is empowered to make general regulations dealing with many matters with which the statute has not specifically dealt.

The Board is authorized, by general provisions, to order a railway company to do anything required by statute, and to forbid the doing or continuing of anything contrary to statute. The Board is made a court of record, and is given full jurisdiction to hear and determine all matters, whether of law or of fact; and, as respects the enforcement of its orders and other matters, it is given all such powers, rights and privileges as are vested in a superior court. The decision of the Board upon any question of fact is binding and conclusive upon all companies and persons, and in all courts. There may be an appeal from an order of the Board to the Supreme Court upon any question of law, under certain conditions. An unlimited right of appeal from the Board to the Governor-General-in-Council is given. The Board may exercise its jurisdiction on complaint of any party interested, or it may, of its own motion, and is obliged at the request of the Minister of Railways to inquire into, hear and determine any matter or thing which, under the act, it might inquire into, hear and determine upon application or complaint.

The rules of the Board require applications and complaints to be made in writing and to be signed by the applicant or his solicitor, or, in the case of a corporate body or company, by its manager, secretary or solicitor. The application is required to contain a clear and concise statement of the facts, the grounds of the application, the section of the act under which the same is made, and the nature of the order applied for, or the relief or remedy to which the applicant claims to be entitled. It has to be divided into paragraphs, each of which, as nearly as possible, is to be confined to a distinct portion of the subject, and the paragraphs are to be numbered consecutively. The application or complaint is to be endorsed with the name and address of the applicant, or, if there be a solicitor acting for him in the matter, with the name and address of the solicitor. In many cases it is required to be accompanied by maps, plans, etc. The applicant is to serve the application, and 10 days are given for the respondent or respondents to answer it. The applicant may also reply to the answer. Any party is entitled to have a matter in which he is interested heard in open court, otherwise matters are frequently disposed of in an informal way by the Board upon correspondence.

As the Board has power to inquire into matters of its own motion, it is not strict in requiring applicants, and particularly illiterate persons, to conform strictly to such rules, but often calls upon a railway company, upon a mere letter or informal complaint, to state its position.

Experts are appointed to advise the Board, chiefly in engineering and traffic matters, and the Board also has officials who inquire into accidents upon railways, and it is empowered to require railway companies to discharge employes responsible for accidents.

Tariffs of tolls for passenger carriage are divided into two classes: standard passenger tariffs and special passenger tariffs. Tariffs of tolls for the carriage of goods are divided into three classes: standard freight tariffs, special freight tariffs and competitive tariffs. All tariffs are required to be filed with the Board, and are to be published in a certain way, unless otherwise ordered by the Board. Standard freight and passenger tariffs are subject to the approval of the Board. Special tariffs and competitive tariffs do not require the express sanction of the Board, but must specify tolls lower than those in the standard tariffs. The competitive tariffs deal with the tolls to or from specified points which the Board may consider, or may have declared, to be competitive points not subject to the long and short haul clause under the provisions of the act. The Board may disallow any tariff, or any portion of it, which the Board considers to be unjust or unreasonable, or contrary to the provisions of the act, and may require a company to substitute a tariff satisfactory to the Board in lieu thereof, or may prescribe other tolls in lieu of those disallowed.

The classification of freight is subject to the approval of the Board, and it is to be made uniform throughout Caanda, as far as may be, having due regard to all proper interests. A company may, with the approval of the Board, or when so directed by the Board, place any goods specified by the Board in a stated class, or remove them from any one class to any higher or lower class. There are the usual provisions against discrimination between persons or localities, and railroad companies are forbidden to charge any money for any services as common carriers except under the provisions of the act.

There are also wide provisions regarding reasonable and proper facilities for traffic to be provided, and requiring the interchange of traffic between railways. Companies whose railways connect may be required to agree upon joint tariffs for a continuous route over both, and if they cannot agree upon the amounts of their rates and the division thereof, the Board may determine the matters of difference.

The provisions requiring railway tolls to be approved, and making them subject to revision by some authority, are not new. Such provisions have been found in all the railway acts of Canada from 1851 down to the present time. Before the act of 1903 the sanction of the Governor-General-in-Council was necessary, and tolls were subject to revision by the Governor-in-Council. There was a Committee of the Privy Council for Canada, known as the "Railway Committee," to which complaints and applications on many matters could be made, among which were complaints respecting tolls, discrimination, etc. A certain time was given, after the coming into force of the act, for railway companies to present their standard tariffs for approval by the Board. Those which have been approved are practically similar to the tariffs that had previously been sanctioned by the Governor-in-Council. The tolls provided for by these tariffs are generally used for local traffic for short distances, but most commodities are moved at rates provided for by the special tariffs, which the railway companies may increase or decrease as they see fit, so long as they keep below the rates in the standard tariffs, and subject to the authority of the Board to direct changes.

The following are some of the most important orders that the Board has made since its inauguration upon the subjects of rates, facilities, etc.: An order requiring certain railway companies to abolish discriminatory and prohibitive rates, which they had been in the habit of charging for years, on cedar lumber, cedar ties, etc., in order to keep down prices for their own construction purposes, and compelling them to make the rates uniform with those charged on other kinds of lumber, ties, etc. An order abolishing discrimination in rates on glass bottles from Wallaceburg, Ont., near Detroit, Mich., as compared with rates from United States points, and applying the same rates as from Detroit. Prohibitive rates on cooperage stock to Montreal, for export, lowered; and an order made requiring cooperage stock between local points to be carried on the same basis as ordinarily charged on lumber. Split peas, for export, directed to be reinstated in a list of articles in which they had formerly appeared, and which take the same rates as flour for export An application by a railway company for permission to make lower rates on coal to manufacturers than to dealers and ordinary consumers was disallowed. Rates on metallic shingles, which railway companies had raised, were ordered to be restored to the former basis.

Export rates on cattle, which had been higher from points in Ontario than from points in the western states, were ordered to be lowered so as to be more in harmony with those paid by U.S. shippers. Railway companies were ordered to discontinue charging higher rates on grain between local points than were charged on flour, etc. Rates on flour, etc., from points in Ontario to Montreal for export were lowered so as to do

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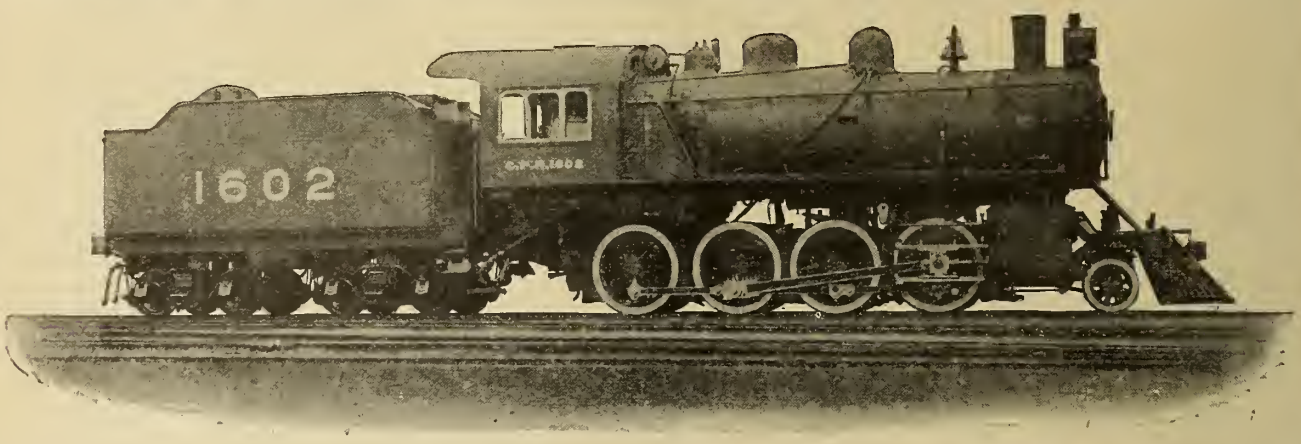

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away with discrimination in favor of U.S. shippers from western states.

Rates on beans were lowered. The Board determined that cartage allowances by carriers, to off-set disadvantages of location as between shippers, unless they are published in the regular tariffs and made general in their operation, should not be allowed. Railway companies have been compelled to enter into joint tariffs with connecting railways, although the rate was calculated to introduce competition with the local business of one company.

The Board took into consideration the question of what are known as car service charges, and the rules regulating them, and prescribed an entirely new set of rules, after hearing from boards of trade and other interests in all parts of Canada, as well as the railway companies. The Board also proposes, under a special section of the act, to prescribe forms of bills of lading, and the conditions on which goods shall be carried.

In some instances, the Board has directed railway companies, whose railways connect with each other in or near a city or town, to interchange traffic so that shippers having immediate connection with only one railway can have their goods transferred at the point of connection to the other line, and has fixed the rates for the short haul. In some cases companies have been given authority to meet the competition of local water carriers not subject to the act, without publication of their rates, other than filing with the Board, and to put them in force before the tariffs can reach the office of the Board. The Board also, in one case lately, made a temporary order as to the method of distribution of cars for traffic from certain lake ports eastward in order to meet what appeared to be unfair discrimination in the allotment of rolling stock.

Under the provisions prohibiting railway companies from charging rates not authorized by the act, the Board assumes to investigate claims of over-charge. Usually the railway companies, upon notice of the complaint, settle the matter summarily to the satisfaction of the parties, or show that their charges are justifiable. This summary jurisdiction, exercised in this way, has proved most beneficial, as it enables parties to have their complaints speedily determined at slight trouble and expense.—Railroad Gazette.

RAILWAY DEVELOPMENT.

Projected Lines, Surveys, Construction, Betterments, Etc.

Atlantic, Quebec and Western Ry.—A meeting of shareholders was held in London, Eng., June 18, for the purpose of electing directors, etc. The company's line between Gaspe and Paspebiac, Que., is under construction. At the recent session of the Quebec Legislature an act was passed authorizing a further extension of time for two years for the commencement and seven years for the completion of the company's lines. (Feb., pg. 61).

Alaska Pacific Ry. and Terminal Co.—A company has been organized to construct a railway from Controller Bay, through the Copper River country, to Eagle City, at the boundary between Alaska and the Yukon Territory, near Dawson City, about 450 miles. The survey maps have been filed and M. W. Bruner, the promoter, states that construction will be started during the current year.

Atlantic Grindstone, Coal and Ry. Co.—H. F. Heustis has been appointed General Manager, his headquarters being at Lower Cove, N.S. The various departments of the company's business are reported to be in good order, and progress is being made with the arrangements for railway construction. (Feb. pg. 61).

Brandon, Saskatchewan and Hudson's Bay Ry.—See Hill Lines in Canada, pg. 383.

Canadian Eastern Ry.—An act was passed at the recent session of the Quebec Legislature incorporating a company with this title for the purpose of constructing a railway from Montreal north-easterly to the Atlantic coast or the Gulf of St. Lawrence, as shall be found to be most convenient, with power to construct branches, make arrangements with other railways, and promote colonization, etc. The provisional directors named in the act are: Hon. E. B. Garneau, Quebec; D. W. Campbell, A. Geoffrion, L. Moore, V. Cusson, Montreal; the company's office is to be in Montreal, unless some other place is named by by-law, and the capital is fixed at $25,000,000. (Feb., pg. 63).

Cape Breton Coal, Iron and Ry. Co.—Nothing is being done at present in connection with the development of the various coal properties at Broughton, N.S., and no decision has been reached as to the starting of construction on the proposed railway to Louisburg. President Mayhew is expected to reach Broughton, from England, early in July, when a definite statement as to the work to be undertaken is expected to be made. (May, pg. 253).

Cuba Railways.—Sir Wm. Van Horne, President of the Cuba Co., stated recently that about 250 miles of new lines will be built during the summer for the purpose of developing the resources of the Island. About 180 miles will be required to provide a connection with Havana. The House of Representatives has voted a subsidy of $500,000, which is at the rate of $6,000 per kilometer, for building a number of short railways. It has been left to the President of the Republic to decide which lines shall receive the subsidy, but it is said that most of the money will probably go to the Van Horne system. Protests have been filed by other companies, which claim they can build these lines without subsidies, and that the amount granted is excessive.

Delaware and Hudson Rd.—The President and some other officers of the D. and H. Rd. recently went over the line of the Quebec Southern Ry., which was lately purchased for this company at the sale held by order of the Court of Exchequer. The object of the visit was to look over the territory with a view to some extension of the company's lines. The D. and H. Rd. at present extends to Rouse's Point, N.Y., and its cars are run over the G.T.R. via St. John's and St. Lambert, Que., into Bonaventure Station, Montreal. The company is arranging to secure either an independent entrance into Montreal, or a connection with the C.P.R. It is reported that a contract has been let for the construction of a line from Rouse's Point, N.Y., to St. Constant or Adirondack Jct., Que, about 30 miles. The Canadian portion of this line is evidently being constructed under the charter of the Napierville Junction Ry., the annual meeting of which was held at Montreal, May 31. At this meeting it was announced that a contract had been let to the Pacific Construction Co.—of which E. J Chamberlin, formerly General Manager Canada Atlantic Ry., Ottawa, is President—for the construction of 30 miles of line from Rouse's Point to St. Constant. A start was made at construction at St. Constant early in June. Following are the officers and directors for the current year: President, W. C. Weatherbee, Port Henry, N.Y.; Vice-President, E Lafontaine, K.C., Montreal; Secretary-Treasurer, J. R. Myers, Rouse's Point, N.Y.; other directors: J. S. Riley, Plattsburg, N.Y.; F. F. Tinker, Rouse's Point, N.Y.; H. S. Philips, Montreal; C. J. R. Bethune, Ottawa.

It is also proposed to extend from some point on its Quebec lines to the southern end of the Quebec Bridge. The Quebec Southern lines, owned by the D. and H. Rd., extend from Noyan Jct. to St. Robert Jct., and from St. Francis du Lac to a junction with the G.T.R. at St. Lambert, and under the several charters there are considerable powers of extension, all of which the Dominion Parliament is being asked to transfer to a company representing the D. and H. Rd., with the title of the Quebec, Montreal Southern Ry. (May, pg. 255).

Detroit River Tunnel Co.—At a meeting of shareholders recently held authority was given to the directors to borrow sufficient money for the construction of the tunnel; to issue bonds or other securities for the same, such bonds to be secured by mortgage upon the property, rents, revenues or other assets of the company, including the company's interest in any agreement which may be made with the Michigan Central Rd., or any other company for the use of the tunnel; to enter into agreements with the Michigan Central Rd., for the guarantee by it of the bonds or other securities of the company, and for the maintenance, management, working and operation of the tunnel and lines connected therewith. (April, pg. 193).

Erie, London and Tillsonburg Ry.—The Railway Committee of the House of Commons has approved of the act incorporating a company with this title, for the purpose of constructing a railway from Port Burwell to London, passing through or near Aylmer, and from some convenient intervening point to Tillsonburg, Ont. The head office of the railway is to be at Tillsonburg, and the capital stock is $1,000,000. The incorporators are; E. V. Tillson, E. C. Jackson, Tillsonburg; J. H. Teall, Vienna, Ont.; W. Thompson, London, Ont.; W. Warnock, Aylmer. J. H. Teall was one of the promoters of the Tillsonburg, Lake Erie and Pacific Ry., which was recently acquired by the C.P.R. (May, pg. 253).

Essex Terminal Ry.—A company with this title was incorporated by the Dominion Parliament in 1902, for the purpose of constructing a line from Walkerville to Amherstburg, Ont., with power to connect with the various railways approaching the International boundary between these points, and to provide for interchange of traffic between them. An amending act was obtained in 1904, by which the provisional directors were stated to be: J. A. Auld, F. A. Hough, Amherstburg; W. Pope, G. F. Porter, Walkerville; S. A. King, Windsor. The company has been making application to the Railway Commissioners for approval of location plans. (Mar., pg. 131).

Great Northern Ry. (U.S.).—See Hill lines in Canada, pg. 383.

Halifax and Eastern Ry.—In the address of the Premier of Nova Scotia to the electors upon the dissolution of the Legislature he referred to the railway construction which had been aided by the Government during the past five years and particularly to the line from Halifax to Yarmouth. The Government, he said, has desired to see similar facilities extended to that portion of country lying eastward from Halifax and extending to the Strait of Canso. A project which gave promise of supplying the needs of that large section was unfortunately unsuccessful, owing to the death of two gentlemen very prominently connected with it. The work had been taken up by a new company, at the head of which stand Sir Montagu Allan and the Acadia Coal Co., which has so long carried on successful operations in Pictou county, and negotiations were in progress which would assure the early construction of the railway from Dartmouth through Eastern Halifax and Guysborough county to Guysborough, and also from the I.C.R. at or near New Glasgow, to the port of Country Harbor. Two survey parties are reported to

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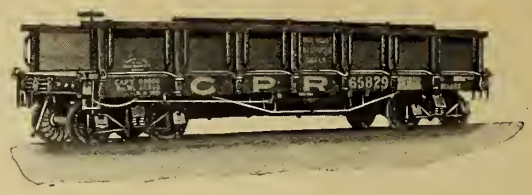

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have been in the field for some time, and a third left Dartmouth June 7. (May, pg. 253).

Halifax and South-Western Ry.—Ballasting on the line between Liverpool and Shelburne, N.S., is being gone on with, and the permanent bridge at Liverpool is nearly completed. The line through to Yarmouth is expected to be opened for traffic in the fall. The ballasting of the Middleton and Victoria Beach section has been completed, and it is expected to have the line opened for public traffic at an early date. (Dec., 1905, pg. 565).

Intercolonial Ry.—Tenders were received to June 23 for the erection of a freight car repair shop at Moncton, N.B. The new shop will be 360 by 132 ft.; the side walls to be 25 ft. high. The middle third of the roof, transversely, will be raised 8 ft. above the general plane to form a monitor which will extend the full length of the building. The footings, foundation walls and base walls will be 4 ft. high, and will be of concrete; the side and end walls will be of brick, except the space between the upper and lower tiers of windows in the side walls, which will be of metallic lath and cement mortar. The roof is to consist of reinforced concrete slabs resting upon steel I beams and purlines; the roof to be supported by structural steel trusses, carried by the side walls and two rows of steel columns. Each of the end walls will have six rolling doors 12 ft. wide by 16 ft. high, and in the north-east wall there will be an additional rolling door 8 ft. by 12 ft. The work is to be commenced forthwith upon the signing of the contract, and is to be completed by Sept. 15. An alternative tender may be submitted for reinforced concrete construction in place of brick.

The new building is the first of the shops to be constructed to replace those burned down in 1905. The site of the new shops will be north of the main line between Montreal and Moncton, within about 1,700 ft. of the race-course, and immediately opposite the I.C.R. reservoir. Going from Moncton, the first building will be the freight car repair shop, already described, situated 165 ft. from the track; next, but nearer the track, will be the planing mill, 80 by 200 ft. The storeroom, 45 by 360 ft., is to the rear, and still further to the rear will be in one block: machine shop, 132 by 355 ft.; tool, bolt and brass rooms, 44 by 353 ft.; smith shop, 75 by 300 ft.; engine erecting shop, 80 by 375 ft.; boiler erecting shop, 50 by 300 ft; and boiler shop 50 by 300 ft. The passenger car repair shop, 100 by 360 ft., adjoins, and furthest away from Moncton will be the paint shop, 100 by 360 ft. The shops will be considerably larger than were those burned down, and the Government has purchased a large area of land, so that extensions can be made to the buildings and yards as may be necessary. (May, pg. 255).

International Ry. of New Brunswick.—It is expected to resume tracklaying at an early date, and it is hoped to get about 50 miles laid during the season. The point at which tracklaying will be commenced will be four miles south-west of the Upsalquitch River, where work was stopped at the end of 1905. We were informed June 9, that the contractor expected to have from 1,200 to 1,400 men at work on the line during the season. (April, pg. 193).

Kettle Valley Lines.—A contract is reported let for the extension from Grand Forks up the north fork of the Kettle River to the McKinley Mine to W. P. Tierney & Co., and work is to be started at once. H. W. Warrington is Assistant Manager and Chief Engineer. (May, pg. 255).

London and Port Stanley Ry.—An inspection of this line by A. O. Graydon, City Engineer, London, Ont., and J. M. Moore, another engineer, has been made on behalf of the owners—the city of London. They report the bridge over Kettle Creek to be perfectly safe for all passenger and excursion traffic; that new rails have been laid between London and St. Thomas, materially strengthening and improving the roadbed, and that the line between St. Thomas and Port Stanley is in excellent condition. (May, pg. 255).

Margaree Coal and Ry. Co.—A contract is in process of arrangement between the Nova Scotia Government and the M.C. and R. Co., for the construction of a line from St. Rose to Orangedale and Port Malcolm, via East Lake Ainslee. The Government subsidy will be at the rate of $4,000 a mile, and the company undertakes to develop its coal properties at St. Rose to a capacity of 1,000 tons a day.

Matane and Gaspe Ry.—An extension of time within which the company may construct its railway from St. Octave de Metis, on the I.C.R., to Gaspe Basin, was granted at the recent session of the Quebec Legislature. The company was also authorized to construct a line from St. Octave de Metis westerly to a junction with the G. T. Pacific Ry., with a branch to Rimouski. Under the terms of the subsidy bill the legislature voted 4,000 acres of land for the construction of 30 miles of line from St. Octave to Matane. (Feb., pg. 63).

Midland Ry. of Manitoba.—See Hill lines in Canada, pg. 383.

Midway and Vernon Ry.—See Hill lines in Canada, pg. 383.

Montreal and Longueuil Bridge.—A. Wills, Chairman of the South-Eastern and Chatham Ry., of England (formerly South-Eastern Ry., and London, Chatham and Dover Ry.), interviewed the Montreal Board of Trade and the Chambre de Commerce, in connection with the project of erecting a bridge over the St. Lawrence between Montreal and Longueuil, Que. The estimated cost of the bridge and terminals is $12,000,000, and it was proposed to ask the Dominion Government to guarantee the principal and interest of bonds to the extent of 75% of the total expenditure, upon a mortgage of the whole property. The plan of the proposed bridge has been approved of Sir Douglas Fox, who supervised the construction of the bridge at the Victoria Falls of the Zambesi River, on the Cape to Cairo Ry., Africa.

Napierville Junction Ry.—See Delaware and Hudson Rd., pg. 379.

New Brunswick Coal and Ry. Co.—Good progress is being made with the repairs and improvements on this railway by Brown Bros., who have the contract from the Commissioners, acting under the New Brunswick Government. The drawbridge over the Washdemoak River has been completed. (Dec., 1905, pg. 567).

North-Eastern Ry.—J. C. Heintz, P. Harnischfyer, New York; J. T. Marchand, J B. Lapointe, Montreal; R. Chevrier, Ottawa, were incorporated by an act passed at the last session of the Quebec Legislature with this title, for the purpose of constructing a railway from near Ville Marie, on Lake Temiskaming, easterly, passing the southern bays of Lakes des Quinze, Victoria and Kakebonga, to Quebec; a line from Lake Temiskaming to the National Transcontinental Ry. near Lake Abitibi; a line from near Lake Kakebonga to Maniwaki; a line from near the Gatineau River to Nonningue. The company is given power to connect with other lines and to make agreements with the same. The head office is to be in Montreal, and the capital is fixed at $1,000,000. (Feb., pg. 63.)

Portneuf County Ry.—M. S. Delisle, M.P., Portneuf; A. Panet, St. Raymond; J. MacFarlane, Westmount; F. W. Evans, W. J. White, Montreal, are the provisional directors of a company with this title, incorporated by an act passed at the recent session of the Quebec Legislature, for the purpose of constructing a railway from St. Casimer or St. Marc, in Portneuf county, north-easterly, following the St. Anne River to Gosford township, passing through St. Christine and St. Raymond, Que. The company is authorized to enter into agreements with other railway companies, to construct or acquire branch lines, and to connect its lines with other lines. Ten miles of line are to be built within two years, and the whole line within five years.

Quebec and James Bay Ry.—By an act passed at the recent session of the Quebec Legislature the provisional directors of the Q. and J. B. Ry. are declared to be: Hon. R. Turner, Hon. E. B. Garneau, J. T. Ross, G. Tanguay, G. Lemoine J. G. Scott, B. A. Scott, W. Power and V. Chateauvert, and the company is authorized to commence its railway within three years and to complete it within 10 years. The company is authorized to construct a railway to James Bay. The charter is in the hands af the Quebec and Lake St. John Ry., and the starting point of the line will be at Roberval, the northern terminus of that company's line. The Quebec Legislature has voted 4,000 acres of land a mile towards the construction of 30 miles of a railway from Roberval towards James Bay. (Mar., pg. 131).

Quebec Bridge and Ry. Co.—Rapid progress is being made in the erection of the superstructure of the bridge over the St. Lawrence between Chaudiere and Cap Rouge. (Nov., 1905, pg. 461).

Quebec Central Ry.—An act was passed last session of the Quebec Legislature authorizing the construction of the Quebec Central Chaudiere Extension, by diverting and rebuilding the present line from Beauce Jct. to Beauceville, and a new line from Beauceville to the River Famine, along the valley of that river and of the St. John River to a junction with the Temiscouata Ry. at Cabano station, a total distance of 125 miles. Of this line the extension to the Famine River is to be completed within two years, and the remainder of the line in 10 years. (June, pg. 327).

Quebec Northern Ry.—G. W. Mitchell, Quebec; F. H. Chrysler, Ottawa, and J. E. Hardman, Montreal, were incorporated by an act passed last session of the Quebec Legislature as a company, with this title, for the purpose of constructing a railway from near the Woodchuck Rapids on Bell River, northerly to Mattagami River, and branch lines. Ten miles of line are to be constructed within two years after the G. T. Pacific Ry. crosses the Bell River, and the entire line is to be completed within five years. The head offices of the company are to be at Quebec, and the capital $1,000,000.

Quebec Southern Ry.—See Delaware and Hudson Rd., pg. 379.

Vancouver, Victoria and Eastern Ry.—See Hill lines in Canada, pg. 383.

Vancouver, Westminster and Yukon Ry.—See Hill lines in Canada, pg. 383.

Yonge St. Bridge, Toronto.—Propositions have been submitted on behalf of the C.P.R. and the G.T.R. to the Toronto City Council, with a view of settling the differences between them respecting the erection of a bridge across the track at the water front of Yonge St. The companies offer to pay the city upon the completion of the bridge $100,000 in cash in full settlement of all claims against them; no claim to be made by the companies for land damages if the old scheme for widening Yonge St., by expropriating 40 ft. on the east side, is abandoned; the bridge to be maintained in equal proportions by the railway companies and the city, but if the bridge is used by the

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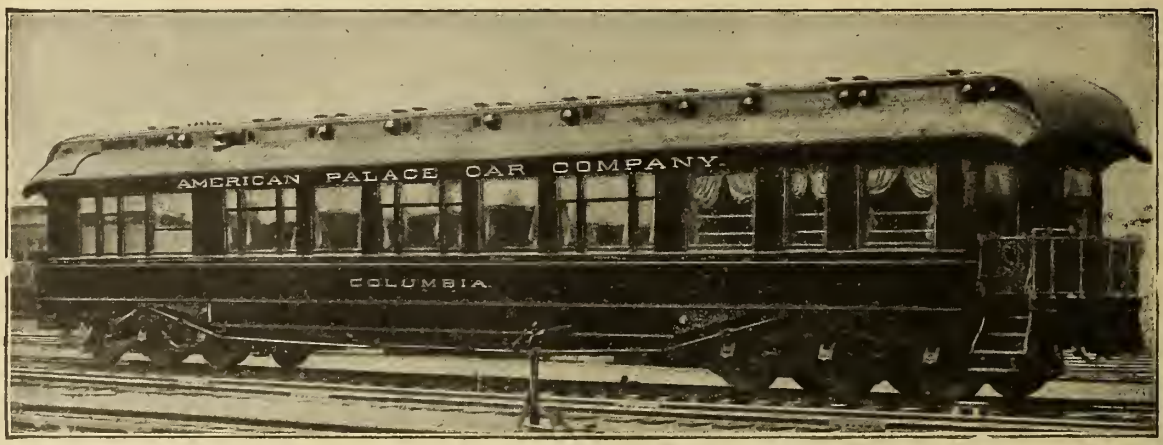

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street railway a new appropriation to be made by the Railway Commissioners. Alternatively it is proposed that the C.P.R. and the G.T.R. will pay one-third of the cost of the bridge, including land damage, but not land damage sustained by the city; the maintenance to be apportioned as in the first proposition. A third proposal involves the construction of the bridge without prejudice to the legal rights of either party; the courts or the Railway Commissioners to decide as to the share of the cost to be paid by the city and the companies. The first proposition has been approved by the Board of Control, and recommended for adoption by the City Council.

The Hill Lines in Canada

What is termed the invasion of Canada by J. J. Hill, President of the Great Northern Ry., U.S., continues to form the subject of a great deal of discussion and speculation in press, railway and legislative circles, not only in Manitoba and British Columbia, but at Ottawa. After his visit to Winnipeg, Mr. Hill returned to New York, and on June 3 reached Ottawa. On the following day he was the principal guest at a luncheon at the Canadian Club, and in the course of a speech said as to his own proposed line in the west, all that remained to be built was the portion from the Rocky Mountains to Winnipeg. The heaviest end of the work, from Vancouver to Fernie, has been practically constructed. They expected to be able to retain the title to this line. It had no bond issue, so that the sheriff could not get it. From the Rocky Mountains to Winnipeg was not a far cry. Winnipeg, owing to its position on a comparatively narrow strip of land between Lake Winnipeg to the north, and the Lake of the Woods to the south-east, was, and always would be, the gateway of the Canadian West. When the produce was got to Winnipeg by his lines it could be taken east by the C.P.R., the G.T. Pacific, or the Canadian Northern Ry.; he would be content with either of them. He expected that the lines in which he was interested would be built into Winnipeg before those of the G.T. Pacific Ry. No bonuses were being asked; the lines were being built simply because it was thought they would pay, and all that was asked was for fair play.

In the course of interviews Mr. Hill stated that the lines were not being built by the Great Northern Ry., U.S.; they were being built by independent companies with money supplied by himself and his associates, and would be completed without any bond issues or the issue of other securities. Bonuses were not asked for, as it was his opinion that they were no great help to a line; and that if a line could not be made pay without a bonus, there was no great necessity why it should be built at all.

The construction of the Brandon, Saskatchewan and Hudson's Bay Ry., from Brandon, Man., to the International boundary is being rapidly proceeded with. It is expected that the grading will be completed by Aug. 1. Tracklaying will be rushed forward, and it is hoped to have the line in readiness to haul part of the current season's crops. The grade is less than 1%, and the work is being done to the best standards. The construction of the bridge across the Souris River is well advanced, and the 200 ft. span will be placed in position at an early date. From Brandon the line parallels the C.P.R. main line for some distance, then turns almost due south, crossing the C.P.R. Glenboro branch at Carrol; the Canadian Northern Ry. at Minto, and the C.P.R. at Boissevain; thence to the boundary, where it will connect with a line now under construction from the G.N. Ry. at St. John, N.D. The question of terminals at Brandon has been under discussion for some time, the negotiations having been in charge of Jas. Fisher, K.C., Winnipeg; and M. J. Costello and G. J. Ryan, of St. Paul, Minn. The company desires to secure the closing of 12th St. and Pacific Avenue, so as to provide for the erection of the station and the laying out of yards. Nothing has been arranged with regard to construction northerly of Brandon.

At Gretna, Man., the Midland Ry. of Manitoba is arranging to lay out a large yard. A branch of the G.N. Ry. terminates at this point and makes connection with the C.P.R. The Midland Ry. Co. has a charter from the Manitoba Legislature to construct a number of lines throughout Manitoba. The charter was obtained in the interests of C. S. Mellen, formerly President Northern Pacific Rd., which, prior to 1901, operated railways in Manitoba. Jas. Fisher, K.C., is also solicitor for this company. The Railway Commissioners have granted this railway permission to cross the Canadian Northern Ry. tracks at Carman. Work is also being carried on by Farelly Bros. upon a line between Alexander and Miniota, Man.; and contractors are at work in other sections of the country in a line with this. Local reports state that this line is the Hill main line from Winnipeg westward.

There are a number of provincial and Dominion charters under which the lines mentioned by Mr. Hill could be constructed, but the Brandon, Saskatchewan and Hudson Bay Ry., and the Midland Ry. of Manitoba, are the only two under which at the present time Mr. Hill and his associates are definitely known to be acting in Manitoba.

Upon the Vancouver, Victoria and Eastern Ry. work is being pushed on the extension from near Laurier, B.C., to Princeton, B.C., via Oroville, Wash., and it is expected to get it completed within two years. On the portion of the line between Princeton and Vancouver, a number of construction parties are reported to be making considerable progress. This portion of the line does not present any difficult engineering problems, such as are being experienced in the more mountainous regions. Chief Engineer Kennedy, of the V. V. and E. Ry., stated recently that the company will build a branch line up the north fork of the Kettle River, to the Pathfinder Mine, a distance of 16 miles. It is also reported in railway circles that the Hill interests have secured a controlling interest in the Shuswap and Okanagan Ry., at present operated under lease by the C.P.R., and the charter of the Midway and Vernon Ry. The promoters of this latter line made a demonstration of construction in 1905, at the time the V.V. and E. Ry. and the C.P.R. contractors were fighting about the right of way between Midway and Rock Creek.

Another railway charter, with which the Hill interests are more or less connected, is the Vancouver, Westminster and Yukon Ry., which is applying at the current session of the Dominion Parliament for an act conferring extensive powers for the construction of additional lines. The company already has power to construct lines from Vancouver to New Westminster, B.C.; from some point on this line northerly to Hazleton, or some other point on the Skeena River, on to Dawson, and to the western boundary of the Yukon Territory. Of these the line from Vancouver to New Westminster has been constructed and is being operated by the Spokane and Northern Ry., a G.N. Ry. subsidiary. The new lines for which power is now being asked are: from between Anderson and Green Lake, passing Lillooet Lake, Lillooet River, and Harrison Lake, south-easterly to the International boundary; from the projected main line between Lillooet and Quesnelle easterly through the basin of Quesnelle Lake to the Tete Jaune Cache; from the projected main line between the Cottonwood and Willow Rivers south-easterly to Barkerville; from near Willow River easterly to the Fraser River, Tete Jaune Cache, through the Yellowhead Pass, and thence by the most convenient route to Edmonton, Alta. These proposals brought about a good deal of discussion in the Senate, and an amendment was adopted by which all railways reaching the Yellowhead Pass are to have running rights over the line through the pass, subject to the order of the Railway Commissioners. (See: Brantford, Saskatchewan and Hudson's Bay Ry., Dec., 1905, pg. 561; Great Northern Ry. (U.S.), June, pg. 321; Midland Ry. of Manitoba, April, pg. 193; Midway and Vernon Ry., May, pg. 255; Vancouver, Victoria and Eastern Ry., Mar., pg. 133; Vancouver, Westminster and Yukon Ry., Feb., pg. 65.

The Air Brake Association.

The 13th annual convention of this association was held at Montreal, beginning on June 5, with a large attendance. President Carlton presided, and upon calling the convention to order introduced Mayor Ekers, who delivered an address of welcome. H. H. Vaughan, Assistant to the Vice-President C.P.R., spoke briefly, referring to his long membership in the association. He called attention to the importance of the work the association had to do and the necessity of having good brakes and proper instructions in handling and maintaining them. He compared the present locomotive brake equipment with that first employed and ventured the assertion that had the latter been as complicated as that at present in use no one would have given it serious consideration.

Addresses were also made by W. E. Fowler, Master Car Builder C.P.R., who referred to air brake improvements as coming thick and fast, and by J. Chamberlin of the Boston & Maine Rd. President Carlton then delivered his annual address. He called attention to the numerous air brake improvements during the past year; to the demand for fast schedules; the importance of the highest possible brake efficiency; the danger in releasing brakes on long trains at slow speed with brakes at present in general use, and asserted that they should be of a character to permit of release at any speed. In conclusion he stated that in his estimation the problem had been solved and could be accomplished by the use of the more modern engine and car brake equipment.

The secretary's report showed the association to be in a flourishing condition both from a financial and working standpoint, with some 800 members, and in close touch with the M.C.B. Association on matters pertaining to air brakes. The first paper presented was "Recommended Practice," which covered the subject of air brakes generally. The paper was freely discussed and a number of recommendations were added. It was decided to have the provisions printed and referred to all members by letter ballot. The recommendations covered location, repairs of and condemning of air pumps; design, location, capacity and connections for main reservoirs; location of engineer's brake valves; type, location and illuminating of air gauges; location of retaining valves; inspection, cleaning and repairing triple valves; location and cleaning of brake cylinders; location of auxiliary reservoir, release valve and rod; piping of engines and cars; foundation brake gear, proper brake power and total leverage; length, strength and height of brake beams; location of signal car discharge valves and conductor's valve; 1¼-inch hose for all passenger and freight equipment cars, and that all passengers car be provided with dummy couplings.

The second day's meeting opened with the reading of a paper entitled "Stencilling Cars; Best Method for General Adoption." The principal comments in the paper were: The great difference of the present as compared with former practice in stencilling triple valves

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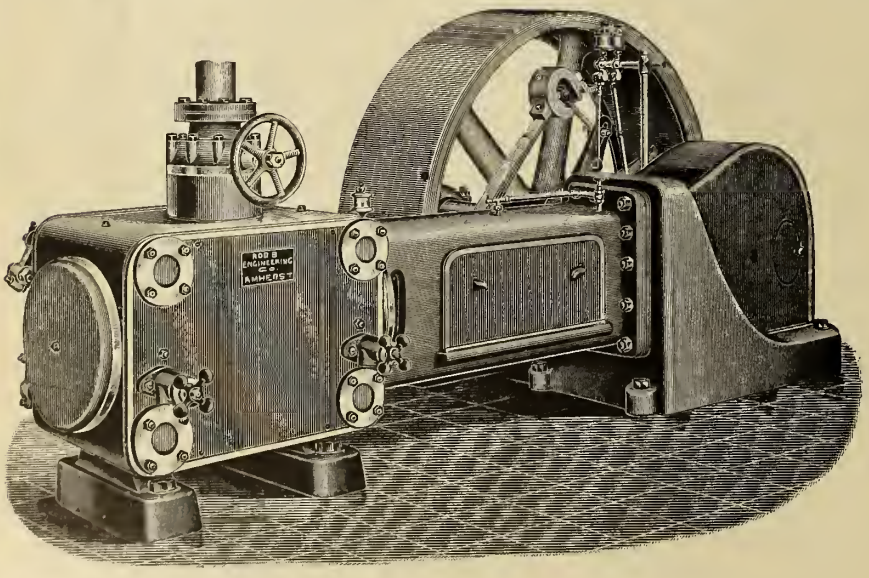

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and cylinders by various railroads, also on private car line equipment; the importance of having triple valves and cylinders of all cars in a clean condition and a uniform method of stencilling the date and place of last cleaning; the objectionable methods now practised in stencilling, particularly on modern cars having cylinders so located as to be inaccessible for marking or obscured from view, and the very considerable per cent. of freight cars having no stencil marks. On cars having auxiliary reservoirs and cylinders so located that they are difficult to reach, the committee suggested that recommendations be made to the M.C.B. Association looking to a uniform method and practice of stencilling, the marking to be on both sides of all freight cars with at least 1½-inch letters and figures, the car owner to designate the exact location of the stencilling and which should be considered standard to the car and treated the same as other repairs. The paper also recommended the removal of triple valves from cars to the air brake repair room for cleaning, oiling and testing, to be followed by proper tests on a triple valve test rack. The transferring of locomotives from one division to another and the changing of tenders appealed to the committee as antagonistic to the recommended practice of the M.C.B. Association adopted last year, which requires "records to be kept of the date and place the triple valves and brake cylinders on locomotives are cleaned," and which it is believed will result in neglect in maintaining the brakes unless the date of cleaning these parts on locomotives is stencilled on the reservoirs and those of the tender at the back end of the truck. The committee made no recommendations regarding passenger equipment brakes, as the handling of such equipment is usually on home lines, making it entirely practical to adopt a practice suitable to such condition. The paper was passed with little discussion.

A paper on "Recent Improvements in Railway Brakes by the Westinghouse Air Brake Co." gave a review of what the company had been able to accomplish during the past two years in the perfection of air brake apparatus, in which all the valuable features of the older types have been retained and to them added many others which have long been desired to perfect the apparatus but heretofore unattainable. Of the various triple valves considered, the K type for freight service, unlike the present standard quick action triple valve, which was designed to operate on trains of 50 cars or less, is intended for trains of any number of cars up to 100 or more. Its quick serial action in service application is similar to that in emergency, brake pipe air as well as that from the auxiliary reservoir being vented into the brake cylinder, resulting in applying all brakes in 50% less time than is possible with the older forms of quick action triple valves, at the same time insuring the application of brakes throughout a 100-car train with absolute certainty and with but a 7-lb. brake pipe reduction. The K triple also is provided with a retarded release feature whereby the retarding of the release at the head end of the train enables the air to get through the train to the rear end, thus giving a practically uniform release of all brakes. This also can be accomplished by the removal of a few parts from the standard triple valve and the replacement of such parts by others, which readily converts the standard quick action triple to the K type. Considerable space was devoted to the consideration of various types of brakes for all kinds of electric car service on steam, elevated, surface and subway railroads. The paper described compressors, brake valves, governors, triple valves, etc., and what can be accomplished in the way of quick serial application; quick recharge of auxiliary reservoirs, thus always insuring maximum braking power; graduated release; brakes operated electrically without in any way impairing their pneumatic operation, the manipulation of either being accomplished by the movement of a single brake valve handle.

The next subject was "The New York Combined Automatic, Straight Air Locomotive Brake Equipment." This paper contained a description of general arrangement and features of an improved system whereby the train brakes can be promptly released and the driver brakes held on or released when desired; also applied or released independently of the train brakes and with the employment of but one brake valve handle; means for reducing train pipe pressure much more rapidly during service application than heretofore, accomplishing a more uniform brake application and shortening the length of stop in service application work. The accelerator valve designed for this purpose augments the movement of the equalizing mechanism of the brake valve, hence the flow of air vented from the train pipe is in accordance with the capacity of the valve. A pressure controller valve is used in conjunction with the brake valve to control maximum train pipe pressure. All excess pressure is confined to the main reservoir and in no position of the brake valve handle will the train pipe pressure increase above the controller adjustment. Various pressures may be carried in the train pipe by turning the pressure cock. Pressure on the brake valve slide valve is reduced and wear of the valve and seat reduced to a minimum. With the use of this valve prompt and uniform release is obtained and the overcharging of auxiliary reservoirs on the head of the train eliminated. Provision is made in the brake valve to prevent danger of brakes sticking, due to insufficient pressure to release them.

The paper described the construction and operation of the system, manipulation of the brake valve, the duplex automatic pressure controller valve, acceleration and safety valves.

The next paper considered was that on "New Types of Westinghouse Triple Valves." It opened by reciting the changed conditions in the operation of railway trains during the past few years incident to the employment of locomotives capable of handling long trains of freight cars, as well as the large number of air brakes in such trains; also the brake requirements in connection with passenger trains of steam and electric roads which have created conditions the well-known types of triple valves have in many instances proven unable to meet. It was explained that the Westinghouse Air Brake Co. has perfected new types of triple valves which perform functions long recognized as very important and desirable, but heretofore lacking. Following is given a detailed description of the different triple valves, what they are able to do and how it is accomplished. The K triple valve has already been referred to. The others are also designated by letters, there being one or more of each type and known as S, T, M, R, L and Q. These triples perform more or less the same functions, such as quick service and emergency application; quick recharge of the auxiliary reservoir; graduated release and high pressure emergency application; the various triples being designed for service in connection with the different requirements of steam and electric railways. This paper provoked much discussion and many questions, bringing out as it did so many developments in the brake art, all of which were of unusual interest to members of the association.

A resolution was passed that in view of the changed conditions in handling long trains the old M.C.B. code of triple valve tests is inadequate and a revised code is recommended.

W. P. Borland, representing Secretary Moseley of the Interstate Commerce Commission, made a few remarks and answered many questions regarding the requirements of the nterstate commerce law.

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The next paper considered was entitled "Two 9½-inch Pumps Versus One." Among the reasons given in this paper for the use of two pumps on a locomotive were the following: the assurance of maximum air supply; the demand for such supply to take care of leakage from the brake system and numerous other purposes for which air is used; the demand for air far beyond the economical capacity of one 9½-inch pump; the great demand for air in mountain service; the physical impossibility of trainmen handling modern trains with hand brakes; the provision against total pump failure and in turn engine failure; the increased life of pumps and reduced cost for repairs owing to the comparative ease with which two pumps can do the work; the quick increase of main reservoir volume when brakes are applied, insuring their prompt release and avoidance of skid wheels and lower air temperature, a result of large radiating surface with two smaller pumps as compared to a single larger one. The discussion which followed was favorable to the employment of two pumps on a locomotive and the sentiment on the part of air brake men appears to be materially growing stronger in that direction. With a view to getting the opinion of all members on the subject it was decided to submit it to letter ballot.

A second paper on air pumps was entitled "Westinghouse Compound Air Pumps." It gave a general description of the construction and operation of the pump and pointed out as the principal objects of attainment sought the continuance of the well tried out mechanical feature of former pumps, simplicity, capacity and economy and how these have been accomplished.

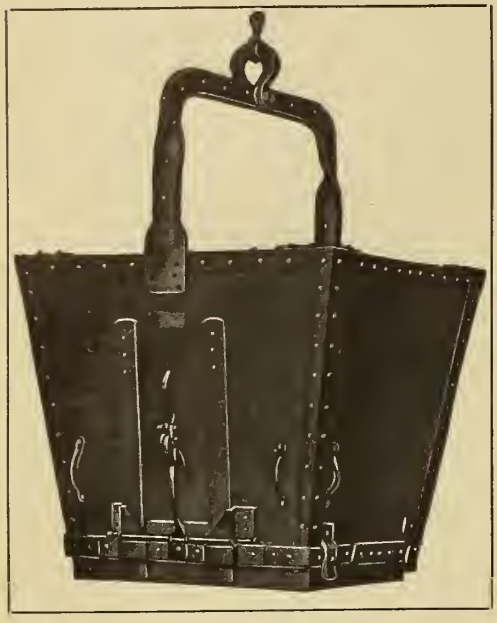
The new Westinghouse equipment was exploited in a paper under the caption, "The Development of the New E. T. Locomotive Air Brake Equipment." The paper was a very comprehensive one, depicting the numerous improvements contained in the apparatus as compared to all former locomotive equipments, and from which it was apparent that while the E. T. apparatus contains all the good features of former types of straight air and automatic engine brakes, it has been much simplified and possesses many radical improvements heretofore unattainable.

The two remaining papers, "Suitable Braking Power for Light and Heavy Cars" and "The Proper Cylindering of Cars for Sufficient Shoe Clearance," were not presented owing to a lack of time. A resolution was passed increasing the annual dues from $2 to $3 per year, to take effect Jan. 1, 1907.

The election of officers resulted as follows: President, W. P. Garabrant, Pennsylvania Rd.; First Vice-President, George R. Parker, Great Northern Ry., U.S.; Second Vice-President, P. J. Langan, Delaware, Lackawanna & Western Rd.; Third Vice-President, W. C. Hunter, New Brunswick Coal and Ry. Co.; Secretary, F. M. Nellis, Westinghouse Brake Co.; Treasurer, O. Best, Nashville, Chattanooga & St. Louis Ry.; Executive Committee: J. R. Alexander, W. P. Huntley and H. A. Wahlert. The next meeting of the association will probably be held at Columbus, O.—Railway Age.

The social features of the convention were very pleasant. On the afternoon of the first day the ladies were given a trip round Mount Royal by the Montreal St. Ry., the members visiting the C.P.R. Angus shops by special train. In the evening there was a ball in Stanley Hall. On the second day the ladies had a drive about the city, the members going to Ottawa by special train, and on the third day the party went to Quebec by special train. W. C. Hunter, Manager of the New Brunswick Coal and Ry. Co., was chairman of the committee of arrangements. The members were much indebted to the Canadian Westinghouse Co. for many attentions.

THE CYCLOPEAN IRON WORKS CO.



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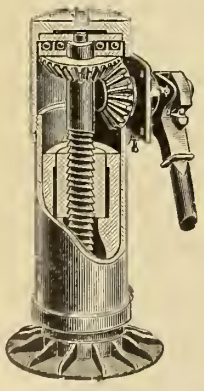
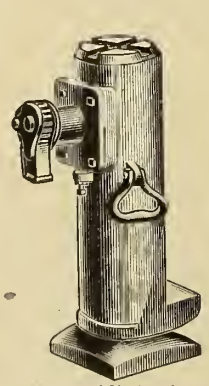
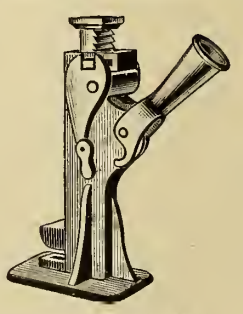


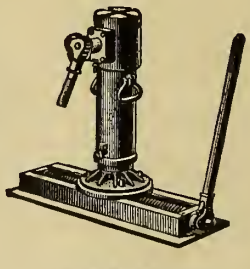
Sectional View



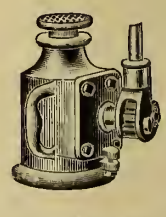
Foot Lift Jack



15 Ton Track Jack



Traversing Jack



Journal Jack

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Canadian Northern Ry. Earnings, etc.

Gross earnings, working expenses, net profits, increases or decreases over 1904-05, from July 1, 1905:

	Earnings.	Expenses.	Net Earnings.	Increase or Decrease.
July..	$395,100	$ 252,600	$ 142,500	$ 51,400+
Aug..	357,900	249,200	111,700	12,200+
Sept..	378,500	268,300	110,200	14,000+
Oct ..	557,100	298,900	258,200	113 600+
Nov.	566,800	341,700	225.100	68,700+
Dec.	437,800	295,600	142,200	7,100+
Jan.	359,900	260,600	99,300	10,800+
Feb.	301,400	217,900	83,500	23,300+
Mar.	441,600	324,200	117,400	46,800+
Apr.	544,800	349,100	195,700	112,300+
	$4,340,900	$2,855,100	$1,485,800	$460,200+

C.P.R. Earnings, Expenses, etc.

Gross earnings, working expenses, net profits, increases or decreases over 1904, from July 1, 1905:—

	Earnings.	Expenses.	Net Profits.	Increase or Decrease.
J'ly	$4,629,174.95	$2,991,397.29	$1,449,652.14	$188,125.52+
Aug. 4	796,733.98	3,005,088.07	1,791,645.91	263,715.48+
Sept.	4,872,575.38	3,086,565.35	1,776,010.05	507,202.49+
Oct.	5,722,767.30	3,448,696.12	2,274,071.18	707,957.27+
Nov.	5,741,543.12	3,380,232.13	2,316,310.99	691,736.25+
Dec.	5,619,182.83	3,272,599.52	2,346,583.31	683,914.48+
Jan.	4,422,690.96	3,155,456.94	1,267,234.02	844,565.55+
Feb.	4,224,451.76	3,018,707.98	1,205,743.78	903,572.46+
Mar.	5,093,286.24	3,248,621.74	1,844,664.50	661,837.46+
April	5,490,999.86	3,148,441.02	2,342,558.84	810,752.63+
	$50,613,406.38	$31,765,806.14	$18,847,600.24	$6,236,379.59+

Approximate earnings for May, $5,545,000, against $4,203,000 for May 1905.

DULUTH, SOUTH SHORE AND ATLANTIC RY.—Gross earnings for April, $237,551.06; net earnings $65,227.32, against $211,402.93 gross and $62,001.03 net for April, 1905. Net earnings for ten months ended April 30, $822,693.54 against $728,210.44 for same period 1903-04. Approximate earnings for May, $265,215 against $254,551 for May, 1905.

MINERAL RANGE RY.—Approximate earnings for May, $61,593, against $58,895 for May, 1905.

MINNEAPOLIS, ST. PAUL AND SAULT STE. MARIE RY.—Gross earnings for April, $959,701.79; net earnings, $419,668.15, against $654,863.07 gross and $249,564.72 net for April, 1905. Net earnings for ten months ended April 30, $4,983,473.76 against $3,591,202.11 for same period 1903-04. Approximate earnings for May, $890,393 against $626,450 for May, 1905.

Canadian Pacific Railway Land Sales.

	Acres.		Amount.	
	1905-06.	1904-05.	1905-06.	1904-05.
July...	58,477.37	36,425.75	$304,795.23	$177,473.94
Aug...	58,542.44	15,669.90	327,579.63	88,735.88
Sept..	111,479.71	16,470.02	556,642.64	73,642.96
Oct...	79,168.41	23,792.84	412,237.95	104,843.47
Nov..	200,441.36	23,392.88	1,065,512.03	112,261.70
Dec....	52,288.20	32,196.59	282,095.12	142,538.40
Jan....	48,249,38	34,500.41	273,115.75	141,750.50
Feb....	68,658.12	27,503.53	378,807.56	116,278.76
Mar....	46,112.80	15,906.61	329,431.94	87,576.00
April..	87,364.74	22,030.37	520,968.41	125,210.08
May...	69,260.02	58,095.21	538,633.40	282,796.37
	879,972.55	305,984.10	$4,989,819.66	$1,453,153.06

Grand Trunk Ry. Earnings, Expenses, etc.

The following statement of earnings, supplied from the Montreal office, includes the G.T. of Canada, Canada Atlantic Ry., the G.T. Western, and the Detroit, Grand Haven & Milwaukee Rys.

	1906.	1905.	Increase.	Decrease.
Jan	$2.896.439	$2,674,242	$222,197	....
Feb..... ..	2,602,274	2,268,252	334,022	....
Mar	3,268,011	3,047,060	220,951	....
April.....	3,180,305	2.990,209	190,096	...
May.....	3,402,544	3,080,242	322,302	....
	$15.349,573	$14,060,005	$1,289,568	....

The following figures relate to the individual lines, and are made out in sterling:

GRAND TRUNK RY. CO.

Revenue for April:

	1906.	1905.	Increase.	Decrease.
Gross receipts....	£520,300	£466,000	£54.300	....
Working expenses	336,300	295,400	40,900	....
Net profit ..	£184,000	£170,600	£13,400	....

Aggregate from Jan. 1 to April 30:

	1906.	1905.	Increase.	Decrease.
Gross receipts ..	£1,891,600	£1,692,900	£198,700	....
Working exp'ses	1,381,200	1,240,900	140,300	....
Net profit.. ..	£510,400	£452,000	£58,400	....

CANADA ATLANTIC RY. CO.

Revenue for April:

	1906.	1905.	Increase.	Decrease.
Gross receipts	£27,400	£28,800	....	£ 1,400
Working expenses	25.100	18,200	£6,900	....
Net profits ...	£ 2,300	£10,600	....	£ 8,300

Aggregate from Jan. 1 to April 30:

	1906.	1905.	Increase.	Decrease.
Gross receipts	£108,200	£102,500	£ 5,700	....
Working expenses	95,500	81,500	14,000	....
Net profit.....	£12,700	£21,000	....	£8.300

GRAND TRUNK WESTERN RY. CO.

Revenue for April:

	1906.	1905.	Increase.	Decrease.
Gross receipts....	£ 79,600	£ 99.000	....	£19,400
Working expenses	67,700	78,000	....	10,300
Net profit....	£ 11,900	£ 21,000	....	£ 9,100

Aggregate from Jan. 1 to April 30:

	1906.	1905.	Increase.	Decrease.
Gross receipts....	£346,700	£367,200	....	£20,500
Working expenses	299,600	310,800	....	11,200
Net profit.....	£47,100	£56,400	....	£ 9.300

DETROIT, GRAND HAVEN & MILWAUKEE RY. CO.

Revenue for April:

	1906.	1905.	Increase.	Decrease.
Gross receipts....	£ 26,000	£ 20,600	£ 5.400	....
Working expenses	18,100	16,400	1,700	....
Net profit ...	£ 7,900	£ 4,200	£ 3,700	....

Aggregate from Jan. 1 to April 30:

	1906.	1905.	Increase.	Decrease.
Gross Receipts....	£107.800	£93,100	£14,700	....
Working Expenses	84,400	74,600	9,800	....
	£23,400	£18,500	£4,900	....

TRAFFIC RECEIPTS OF THE SYSTEM.

Aggregate from Jan. 1 to May 31:

	1906.	1905.	Increase.	Decrease.
Grand Trunk	£2,447,959	£2,199,243	£248,716	...
Canada Atlantic	147,462	138,691	8,771	...
G. T. Western	429,060	440,934	....	£11,874
D. G. H. & M.	129.781	110,371	19,410	....
Total.....	£3,154,262	£2,889,239	£265,023	....

Railway Finance, Meetings, etc.

Alberta Ry. and Irrigation Co.—Net receipts from all sources, exclusive of land sales, for Mar., $4,386, making for nine months ended March 31, $210,097. Gross railway receipts for ten months ended April 30, $160,694.

Brockville, Westport and North-Western Ry.—The changes made in the directorate of this line were necessitated by the change in control of the United National Bank of New York, which is practically the owner of the line. The directors who retire are H. W. Gennerich, A. Berngaud and C. Hellshorn, the new directors being E. R. Thomas, O. F. Thomas, and W. I. Burgess. E. R. Thomas has been elected President, succeeding J. Gerken, who has been elected Vice-President, succeeding C. H. King. The latter remains a director, and C. Hellshorn as Secretary. The line was bought at a foreclosure sale in 1903, and was reorganized under the present title, with additional powers, under a Dominion Act in 1904. It has $900,000 in common and preferred stock and a funded debt of $450,000. The preferred stock is 6% non-cumulative.

Canada Southern Ry.—Directors for the current year were elected at the annual meeting at St. Thomas, Ont., June 6, as follows: W. K. and F. W. Vanderbilt, H. McK. Twombly; W. H. Newman, C. M. Depew, S. F. Barger, H. B. Ledyard, E. A. Wickes, J. E. Brown. They also were elected directors of the C.S. Ry. subsidiary companies—Canada and Michigan Bridge and Tunnel Co.; Michigan, Midland and Canada Ry.; Toledo, Canada Southern and Detroit Ry., and Canada Southern Bridge Co., at the several meetings held on the following day.

Canadian Northern (Quebec) Ry.—This is the title under which it was decided to amalgamate the Great Northern Ry. of Quebec, including the old Montreal and Gatineau Ry.); the Chateauguay and Northern Ry., and the Quebec, New Brunswick and Nova Scotia Ry., at a meeting of the shareholders of the several companies held May 28. Application has been made to the Railway Commissioners approving of the amalgamation, but the order has not yet been issued. The consolidation includes: lines in operation 244.30 miles, lines under construction (about) 105.00 miles, lines authorized (exclusive of branch lines) about 500.00 miles. Total mileage 849.30.

Canadian Pacific Ry.—The dates upon which the remainder of the calls are due upon the additional stock issued by the C.P.R. and upon which 20% was paid upon application are, July 26, Sept. 26, Nov. 26, 1906, and Jan. 25, 1907, the instalments due in each case being 20%. Hon. L. J. Forget, Montreal, has been elected a director.

Dominion Atlantic Ry.—Gross earnings for April $69,800, against $69,243 for April, 1905. Total for four months ended April 30, $250,106, against $216,282 for same period, 1905.

Hampton and St. Martins Ry.—Under a decree of the Supreme Court the property of the company, comprising the railway, together with all its plant, buildings, rolling stock and franchises, was sold by public auction recently at Hampton, N.B. The sale was made to G. Vaughan, St. Martins, who was acting on behalf of the bondholders, the purchase price being $1,500. The H. and St. M. Ry. was originally constructed as the St. Martins and Upham Ry., and extends from Hampton, on the Intercolonial Ry., to St. Martins, on the Bay of Fundy, 29 miles. The track is laid with 67-lb. steel rails, and there is half a mile of sidings. The rolling stock comprises one locomotive, one second-class car, and one box car. The financial statement shows $100,000 ordinary share capital paid up, and a bonded debt of $145,000. The company received $83,612.54 of used rails from the Dominion Government, and $145,600 cash from the New Brunswick Government, by way of subsidy. The total cost of the line and equipment is given as $245,000. Figures showing the operations of the line during the year ended June 30, 1905, will be found on pg. 309 of our June issue.

Intercolonial Ry.—Speaking in the House of Commons June 11, upon the estimates for the Government railways, the Minister of Railways said it was proposed to increase the salary of the Deputy Minister from $6,000 to $7,500 a year; and to establish a statistical branch. Speaking of the operations of the I.C.R. he said the deficit at April 30 was only $82,000, and owing to the increase of receipts this had been practically wiped out. The earnings for May were $118,000 in excess of those of May, 1905, and the year's operations would show a surplus. The Canada Eastern Ry., which had been absorbed into the I.C.R., was a paying line.

London and Port Stanley Ry.—The directors have declined to consider the offer of the Pere Marquette Rd. for an extended lease of the line, which is virtually owned by the city of London. The lease has several years yet to run, but extensive repairs and improvements are necessary, and the company desires to have the lease extended before undertaking the work of improvement.

Pere Marquette Rd.—For the purpose of providing funds to pay taxes, the Receiver has issued $1,200,000 of certificates bearing 5½% interest, and constituting a first lien on the entire property of the road. The certificates have been sold at par, and are repayable in equal amounts every six months to Aug., 1909.

Qu'Appelle, Long Lake and Saskatchewan Rd.—Net earnings for April, $18,791.61, against $9,827.39 for April, 1905.

Quebec and Lake St. John Ry.—A mortgage deed made between the Q. and L. St. J. Ry.

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CANADIAN OIL COMPANY, Ltd.
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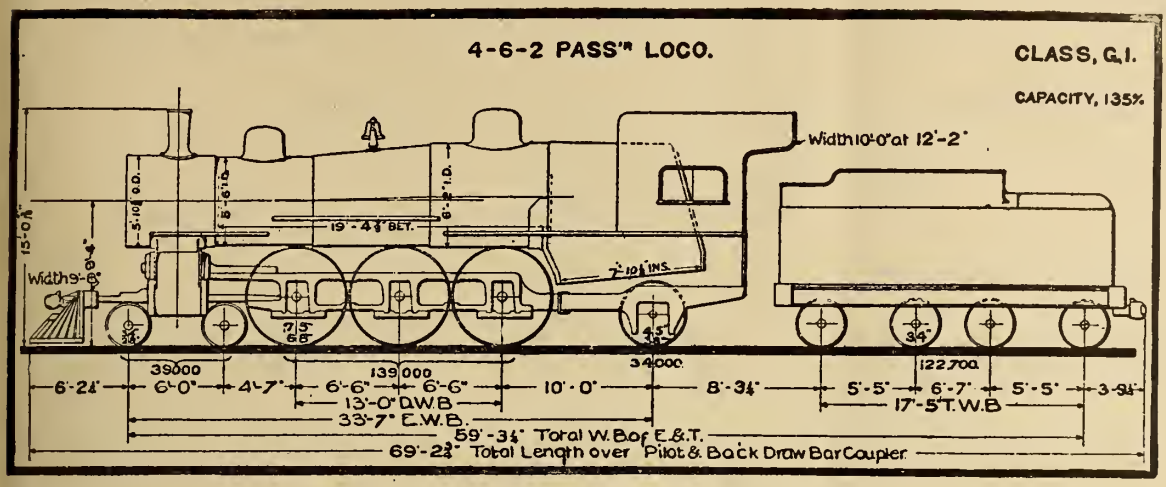
and the Railway Share Trust and Agency Co., London, England, dated April 6, securing the balance of an additional issue of prior lien bonds, has been deposited with the Provincial Secretary at Quebec.

Temiscouata Ry.—Gross earnings for May, $14,218.14, against $13,657.23 for May, 1905.



CANADIAN PACIFIC RAILWAY, PACIFIC TYPE LOCOMOTIVE

Toronto, Hamilton and Buffalo Ry.—Estimated receipts for May, $61,122.49, against $55,196.79 for May, 1905.

The annual meeting of shareholders was held at Hamilton, June 5, when reports were presented and directors elected. Following are the officers and directors for the current year: President, J. N. Beckley, Rochester, N.Y.; Vice-President, Sir Thos. G. Shaughnessy, Montreal; Secretary and Treasurer, C. E. Cox, New York; other directors: W. K. Vanderbilt, W. H. Newman, New York; D. McNicoll, Montreal; E. B. Osler, M.P., N. Kingsmill, K.C., W. P. Torrance, Toronto; D'A. Scott, Ottawa; H. B. Ledyard, Detroit, Mich.

Newfoundland Legislation.—At the recent session of the Newfoundland Legislature the following were among the acts passed: Respecting the regulation of railways; confirming the agreement between the Government and the Commercial Cable Co.; respecting the construction, etc., of the cable from Newfoundland to Canso, N.S.; confirming an agreement between the Government and the Marconi Wireless Telegraph Co. of Canada; respecting the construction and operation of wireless telegraph stations; and amending the Post and Telegraph acts, 1891 and 1895.

Railway Rolling Stock Notes.

The Temiskaming and Northern Ontario Ry. is arranging to place further orders for rolling stock.

The Intercolonial Ry. is in the market for 200 hopper cars, and not 200 platform cars as we were advised and stated in our June issue.

The Crossen Car Manufacturing Co., Cobourg, Ont., is making delivery of stock cars to the Canadian Northern Ry.

Box cars with the legend, "Grand Trunk Pacific Ry," have made their appearance at different points on the G.T.R. lines.

Rhodes, Curry & Co., Amherst, N.S., have delivered four logging cars to the Springfield Lumber Co., Springhill, N.S.

The Intercolonial Ry. between May 15 and June 14, received two first-class cars, three vans, and 10 dump cars from Rhodes, Curry & Co., Amherst, N.S.

The Canadian Locomotive Co., Kingston, Ont., delivered to the C.P.R. during May five 10-wheeled locomotives of the 700 class, out of an order of 13.

The Central Ontario Ry. has ordered from the Dominion Dump Car Co., Montreal, 10 Hart convertible cars, 34 ft. long, 8 ft. 8 in. wide, 80,000 lbs. capacity.

The Canadian Northern Ry. has placed an order with the Dominion Dump Car Co., Montreal, for 20 Hart convertible cars of 80,000 lbs. capacity for early delivery. They will be 34 ft. long.

The Atlantic, Quebec and Western Ry. has ordered from the Dominion Dump Car Co., Montreal, 10 Hart convertible cars 34 ft. long, 8 ft. 8 in. wide, 80,000 lbs. capacity, for construction work.

We were advised May 26 that the G.T.R. had recently received five new standard baggage cars from its Montreal shops, and 134 box cars, 60,000 lbs. capacity, from the Canada Car Co., Montreal.

The Pure Ice Co. has been incorporated under the Dominion Companies' Act, with a capital of $95,000, and offices at Montreal, to deal in ice, and incidental to the said business to acquire railway and other rolling stock.

The Intercolonial Ry. between May 15 and June 14 ordered 60 box cars, 60,000 lbs. capacity, from Rhodes, Curry & Co., Amherst, N.S., and two ballast distributing plough cars from the Dominion Dump Car Co., Montreal.

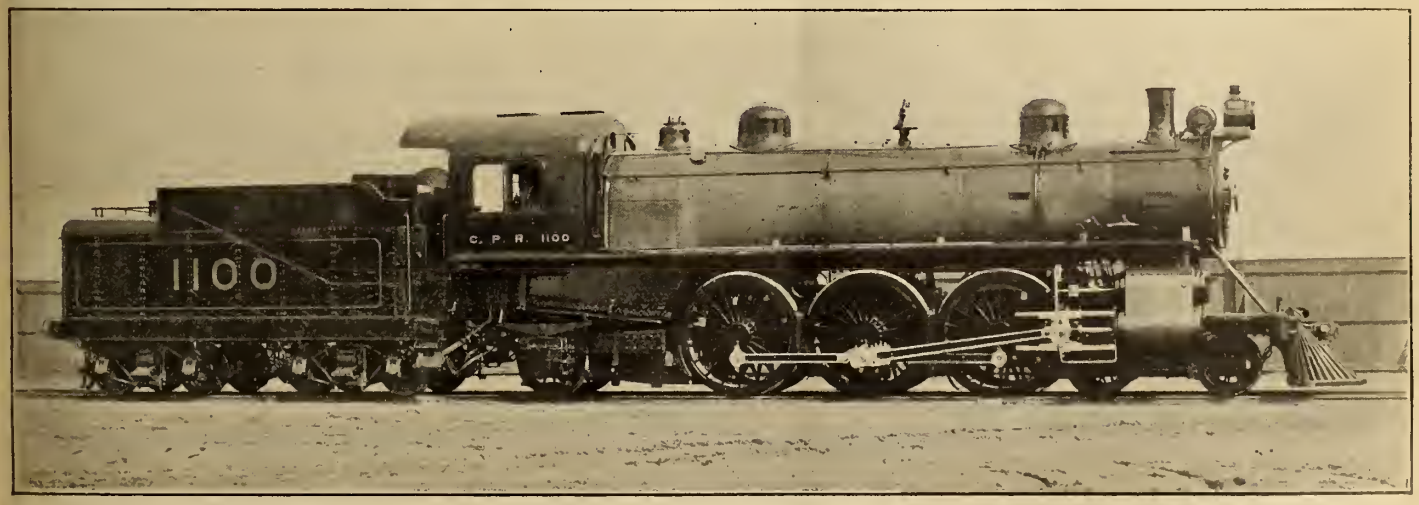
The Temiskaming and Northern Ontario Ry. has received two first-class coaches and one baggage and mail car from the Crossen Car Manufacturing Co., Cobourg, Ont., and has placed an order with the same firm for four first-class coaches.

The Locomotive and Machine Co. of Montreal, is delivering the 10-wheel locomotives to the G.T.R., for which an order for 10 was placed some time ago, and has completed the four 10-wheel locomotives for the Temiskaming and Northern Ontario Ry.

The C.P.R., between May 16 and June 11, placed orders for the following rolling stock: 1,000 box cars, three Rodger double plough distributing cars, one air brake instruction car, three observation cars, at its Angus, Montreal, shops; and 25 vans at its Farnham, Que., shops.

The C.P.R. is building at its Angus, Montreal, shops, a sleeping car 72 ft long by 9 ft. 10½ in. wide over frames, having a capacity of 12 sections, smoking room and stateroom. The special fixtures include Simplex brake beams with adjustable heads, Westinghouse air brakes, Standard Steel Co.'s platforms.

The C.P.R., between May 16 and June 11, received the following rolling stock: Five freight locomotives from the Canadian Loco-



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The Only Double Track Railway in the Dominion

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motive Co., Kingston, Ont.; five freight locomotives, one motor car, six sleeping cars, two parlor cars, one cafe parlor car, four baggage and smoking cars, 250 flat cars and 170 stock cars from its Angus, Montreal, shops.

The specifications of the 14 stock cars which the C.P.R. is having built at its Angus, Montreal, shops provide for: length (outside), 36 ft. 8 in.; width over frame, 9 ft. 5 in.; inside, 8 ft. 9¾ in.; height, inside, 7 ft. 1¼ in.; axles, 4¼ by 8 in.; brasses, 4¼ by 8 in.; cast iron wheels; Simplex bolsters and brake beams; Susemihl side bearings; Westinghouse air brake.

The baggage commissariat car which the C.P.R. is having built at its Angus, Montreal, shops, will be 72 ft. long, and 9 ft. 10½ in. wide over frames, and mounted on six-wheel passenger trucks. It will be fitted internally for carrying provisions and supplies. It will be provided with Simplex brake beams with adjustable heads, and Westinghouse air brakes.

The two orders for box cars under construction for the C.P.R. at its Angus, Montreal, shops cover 1,091 cars, the specifications providing the following: length, 36 ft. 8 in.; breadth, 9 ft., 0⅝ in. over frames; inside dimensions, length, 36 ft.; width, 8 ft. 6 in.; height, 8 ft.; axles, 4¼ by 8 in.; journal bearings, 4¼ by 8 in.; wheels, 33 in. cast iron. Special fittings: Simplex bolsters and brake beams, Susemihl roller side bearings; Westinghouse air brakes.

The Quebec Central Ry. has placed an order for two mogul locomotives with the Canadian Locomotive Co., Kingston, Ont. Following are some of the dimensions:

ENGINE.—Weight, in working order, on drivers, 124,000 lbs.; total, 144,000 lbs. Wheel base—rigid, 15 ft.; total, 23 ft.; and tender, 49 ft. 8½ in. Driving wheels—Diameter, 56 in., cast iron centres; diameter and length of driving journals, 9 by 12 in. Cylinders, 20 by 26 in. Boiler—Type, radial stayed; number of tubes, 280; diameter, 2 in; length, 12 ft. 6 in. Brakes—Westinghouse.

TENDER—Weight loaded, 90,000 lbs.; capacity of tank, 4,000 imperial galls.; style of tank, level top; coal capacity, 5 tons; wheels—diameter, 33 in, steel tires; diameter and length of journal, 5 by 9 in.

The Temiskaming and Northern Ontario Ry. has placed an order for two switching engines with the Canadian Locomotive Co., Kingston, Ont., specifications for which follow:

WEIGHT—In working order, 128,000 lbs., all on drivers.

WHEEL BASE—Rigid, and total, 11 ft.; and tender, 40 ft.

HEATING SURFACE—Firebox, 138 sq. ft.; tubes, 1,304 sq. ft.; total, 1,442 sq. ft.

DRIVING WHEELS—Diameter, 50 in.; material of centres, cast steel; diameter and length of journals, 8½ by 10 in.

BOILER—Type, extension radial stayed; working pressure, 200 lbs.

TUBES—Number, 239; diameter, 2 in.; length, 10 ft. 6 in.

BRAKES—Westinghouse.

TENDER—Weight when loaded, 85,000 lbs.; capacity, 3,500 imperial galls. and 6 tons of coal; style of tank, sloping back; wheels, 33 in. diameter; truck, 4 wheeled, with Simplex bolster and brake beam.

The C.P.R. has now in service three Pacific type locomotives, known as class G1, numbers 1100 to 1102 inclusive, an illustration of one of which is given on page 389. It has also three very similar ones known as class G2, the principal, difference between them being the diameter of the wheel, which for G1 is 75 ins., and for G2, 69 ins. There is also a slight difference in the length of firebox, G1 being 8½ ins. shorter than G2. Following are the general dimensions: of G1:

Working pressure, boiler, 200 lbs.; firebox, width, 5 ft. 9⅛ in.; firebox, length, 7 ft. 10⅛ in.; number tubes, 193-22; length of tubes, 19 ft., 6 in.; diameter of tubes, 2¼ in. and 5 in.; heating surface, tubes, 2,777; heating surface, firebox, 180; heating surface, total, 2,957; grate area, 45.6; cylinders, 21 in. x 28 in.; driving wheels, 75 in.; weight on drivers, 139,000 lbs.; weight total engine, 212,000 lbs.; weight of tender, 122,700 lbs.; weight of tender light, 52,700 lbs.; water, imperial galls., 5,000; coal, tons, 10.

Additional Dominion Legislation

In addition to the acts respecting railway companies, etc., mentioned in our last issue, the Dominion Parliament at its current session has also passed acts respecting the following:

British Columbia Southern Ry.—Granting an extension of time for construction.

Calgary and Edmonton Ry.—Granting an extension of time for construction, and authorizing certain extensions of the lines.

Essex Terminal Ry.—Granting an extension of time for construction.

Grand Trunk Pacific Ry.—Respecting the capital stock to be issued.

Great Northern Ry. of Canada—Granting an extension of time for construction.

Montreal Harbor Commissioners.—An act respecting the Harbor commissioners; and (2) an act respecting the powers of the Harbor Commissioners.

Quebec Midland Ry.—Incorporating the Quebec Midland Ry. Co.

American Railway Engineering and Maintenance of Way Association.—The Committee of Publication has issued a 28-page booklet giving an outline of committee work and the organization of committees for 1906-07. Included among the officers for the year is W. McNab, Assistant Engineer G.T.R., Montreal, as a director. The following are among the members of the different committees:—Roadway, D. McPherson, Assistant Chief Engineer Transcontinental Ry. Commission, Ottawa. Rail, F. H. McGuigan, Fourth Vice-President G.T.R., Montreal. Track, T. H. Hickey, roadmaster Michigan Central Rd., St. Thomas, Ont. Buildings, R. B. Pratt, Railway Architect, Canadian Northern Ry., Winnipeg, Man. Wooden Bridges and Trestles, H. Ibsen, Acting Bridge Engineer Michigan Central Rd., Detroit, Mich. Masonry, J. Tuthill, Engineer Bridges and Buildings, Pere Marquette Rd., Detroit. Signs, Fences, Crossings and Cattleguards, F. P. Gutelins, Assistant Chief Engineer C.P.R., Montreal; K. J. C. Zinck, Assistant Engineer G.T. Pacific Ry., Montreal. Records, Reports and Accounts, W. S. Kinnear, Assistant General Manager, Michigan Central Rd., Detroit, Mich; V. S. Simar, Acting Chief Engineer Duluth, South Shore and Atlantic Ry., Marquette, Mich.; H. A. Woods, Assistant Chief Engineer G.T. Pacific Ry., Montreal. Uniform Rules, Organization, Titles, Code, etc., G. H. Webb, Chief Engineer Michigan Central Rd., Detroit, Chairman; J. F. Deimling, Chief Engineer Pere Marquette Rd., Detroit. Water Service, A. Gilt, Analyst Inland Revenue Department, Ottawa, Vice-Chairman. Yards and Terminals, A. C. Everham, Terminal Engineer Detroit River Tunnel, Detroit; D. A. Ross, Terminal Engineer Canadian Northern Ry., Winnipeg. Economics of Railway Location, W. McNab, Assistant Engineer G.T.R., Montreal, Chairman; A. C. Dennis, Division Engineer G. T. Pacific Ry., Winnipeg.

The award of the arbitrators in the wages dispute between the G.T.R. and its locomotive engineers gives the men some advances in pay, but, according to an officer of the company, not so much as was asked for.

The Canadian Northern Ry. inaugurated a through passenger service between Winnipeg, Man., and Prince Albert, Sask., 558.3 miles, June 3. A tri-weekly service is given, the trains leaving Winnipeg at 8.05 on Monday, Wednesday and Friday mornings, and leaving Prince Albert at 8 Monday, Wednesday and Friday mornings. These trains run over the Brandon short line section, the Carberry branch and the Neepawa section between Arizona Jct. and McCreary Jct., this making a total of 620.6 miles between Winnipeg and Prince Albert.

C.P.R. Betterments, Construction, Etc.

Freight Shed, Quebec.—A large freight shed has been constructed at Quebec upon the land recently acquired near the breakwater. The additional accommodation is necessary in connection with the using of Quebec as the Canadian terminal for the two new fast steamers, Empress of Britain and Empress of Ireland.

Montreal to Buckingham.—Officials of the C.P.R. have been visiting Buckingham, Que., where the question of constructing a branch line into the town was discussed. We were advised June 16, that nothing definite could be said about the project.

Windsor St. Station, Montreal.—The question of the enlargement of the Windsor St. station, offices and yards has been referred to many times in press reports, and purchases of land by the C.P.R. in the vicinity of the station have, from time to time, kept the discussion alive. On June 7, Sir Thos. Shaughnessy, in an interview, said: "With the rapid growth of our traffic we are continually more and more feeling the necessity of extending our terminals. On the new land which we propose acquiring we shall erect office buildings round the terminals. It is as yet too early to discuss the architectural features of the buildings, but they will not be out of harmony with the present structure." The additional lands, which it is proposed to acquire by expropriation proceedings, notice of which has been served, will enable the company to enlarge the Windsor St. Station so as to include the whole block bounded by Windsor, St. Antoine, Mountain and Osborne streets. A number of the lots necessary to give the company possession of the area in question have already been acquired, having been acquired as occasion offered, and the company is doing all it can to facilitate the expropriation proceedings on the balance of the lots.

Another story is being added to the Osborne street portion of the present office buildings, which is all it is contemplated doing during the current year. The Canadian White Co. has the contract for this work.

Place Viger Station Extension.—The Quebec Legislature at its last session ratified the agreement between the C.P.R. and the City of Montreal, with respect to the closing of certain streets in the vicinity of Place Viger station, through land acquired by the company in connection with its plans for the extension of the yards at this station. The agreement is for nine years, but is to be renewed for a further period of 90 years.

St. Annes-Vaudreuil Second Track.—The C.P.R. is a double track line between Montreal and St. Annes, Que., 21 miles; and it is intended to extend this to Vaudreuil, a further distance of three miles, this season. The work is being done by the company itself.

Georgian Bay and Seaboard Ry.—Plans have been filed by the C.P.R. showing the location of this line from Victoria Harbor on Georgian Bay to a point on its Montreal-Toronto line. The route parallels the G.T.R. line from Midland most of the way, crossing the narrows of the Couchiching Lake at Orillia, and touching Lindsay. It is not finally decided whether the line will pass through Peterborough or not, but the junction with C.P.R.'s Montreal-Toronto line will be near that place. Tenders have been invited for the construction of this line, the eastern terminal being said to be between Peterborough and Havelock. The last day for receiving tenders is July 7.

Guelph and Goderich Ry.—Tenders have been asked for the construction of a branch from this line, now nearing completion, at Linwood to Listowel, Ont., about 15 miles.

Proton to Walkerton.—Tenders are under consideration for the construction of a line

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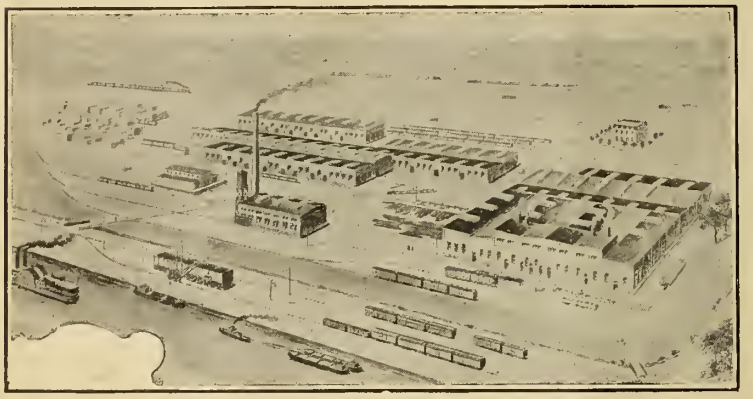

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from Proton, on the C.P.R.'s Toronto-Owen Sound line, to Walkerton, Ont., on the G.T.R.'s line to Southampton, about 35 miles. The line will pass through Durham, and it is likely that in time it will be extended from Walkerton to a point on Lake Huron.

Fort William Freight Shed.—It has been decided to erect a large double-deck freight house at Fort William, Ont., between elevator dock B. and Ridgeway St. The new shed is to be 1,300 ft. long. The first story is to be erected during the summer, and the second will be gone on with during the winter.

Darlingford Southerly.—Approval has been granted by the Railway Commissioners for the construction of a branch line from or near Darlingford, Man., on the Winnipeg-Napinka line, southerly for 5.9 miles.

White Mud River Spur.—The Railway Commissioners have sanctioned location plans of a branch from the White Mud River spur, on the Manitoba and Northwestern Ry., near Arden, Man., northerly for a distance of 4.2 miles.

Churchbridge Branch.—The location plans have been passed by the Board of Railway Commissioners for a branch from the Manitoba and Northwestern Ry. to be known by this title. The branch will start at Bredenbury, 7 miles from Churchbridge, and will join the Pheasant Hills branch near Esterhazy, 20.2 miles.

Western Extensions.—Following is an extract from a recent article in the Toronto Globe:

(1) The C.P.R. will build this summer from Sheho, the present end of its Yorkton branch, to Saskatoon, 185 miles.

(2) The C.P.R. line at present ending at Strassburg will be continued to meet the Sheho-Saskatoon extension, 75 miles.

(3) From Saskatoon the C.P.R. will build west to Daysland, where it meets a spur of 53 miles running out from Wetaskiwin, about 250 miles.

(4) From Tuxford, a spur twelve miles north of Moose Jaw, the C.P.R. will probably build northwest to the Elbow of the Saskatchewan, on the way to meet the new C.P.R. coming east from Lacombe, and already built out to Stettler. The total length of this line will be about 270 miles, of which at least the portion to the Elbow will be constructed this summer.

(5) From Sheho to Prince Albert, another continuation of the Yorkton line, is a proposition of the immediate future, though it may not start this summer; about 200 miles.

(6) The C.P.R. plans also a railway from Swift Current, on the main line, northwest to a point on the proposed Lacombe-Moose Jaw line; about 200 miles.

(7) A short but important piece of C.P.R. construction will be a cut off from the Portal-Pasqua line to some point on the Arcola-Regina branch.

Several of these lines, we understand, have not gone beyond the project stage, but in reference to the first four we had been previously advised that the construction of the following mileages had been authorized and that it was expected to have most of the extensions completed during the year: (1) From Sheho westerly for 37 miles; from Saskatoon easterly, 40 miles. (2) From Strassburg northerly, 40 miles. (3) From Saskatoon westerly 34 miles; from Daysland, Alta., easterly 50 miles. (4) From Moose Jaw to Tuxford, Sask., 14 miles; from Stettler, Alta., 50 miles. The extension from Strassburg northerly is under construction, the British Columbia Construction Co. having the contract.

Branch from Calgary.—Notice has been given by the C.P.R., as lessee of the Calgary and Edmonton Ry., that the Railway Commissioners will be asked to approve of the construction of a branch line from Calgary, Alta., to sec. 11, tp. 24, r. 1, w. 5th m., according to plans filed at Calgary.

Terminals at Strathcona.—An agreement has been reached between C.P.R. officials and the Town Council of Strathcona, Alta., by which terminal facilities are to be provided there. The town is to provide about 70 acres for roundhouse, car shops and divisional yards, and the C.P.R. is to expend $50,000 upon the properties this year. We were advised June 16, that the agreement with Strathcona had not then been executed; that the layout of the yards had not been arranged, and that the building plans had not been prepared.

Terminals on Crow's Nest Pass Line.—The lands required for the laying out of terminal yards at Lethbridge, Alta., and Crowsnest, B.C., have been selected, and it is understood that construction will be gone on with at an early date. A 4-stall roundhouse and yards to accommodate 200 cars, as well as coal-bunkers will be provided at Crowsnest, and larger facilities at Lethbridge. The present terminals at McLeod, are to be moved to Lethbridge.

Rocky Mountain Lines.—It is reported, says the Montreal Gazette, that the C.P.R. is preparing to build another line through the Rocky Mountains at a point some distance north of the present route through Kicking Horse Pass, and that work will commence on this line without delay. It is understood that the new route will be through the Yellowhead Pass, which is about 300 miles north of Kicking Horse Pass, and it is said by engineers to be by far the best railway route through the mountains. It is stated that already the C.P.R. has secured a right-of-way through the Yellowhead, and has engineers on the field making preliminary surveys. We were advised June 23 that this is merely newspaper gossip.

Kootenay Central Ry.—The grading on the first 10 miles of this line from Golden, B.C., has been completed. The work has been done by the British Columbia Contract Co., of which G. H. Webster, Vancouver, is General Manager.

New Brunswick Coal and Ry. Co.—In the table of statistics of Canadian railways published in our last issue mention of this company was overlooked. The company owns 58 miles, and extends from Norton on the Intercolonial Ry., to Minto, N.B., of which 43 miles constituted the old Central Ry. of New Brunswick. It started construction on an extension from Minto to Newcastle, but was irregularly operated, and the line was so much out of repair that in 1905 the New Brunswick Legislature took possession of the property, appointed a commission to put it in repair, and provided the funds for that purpose. No statistics of operation etc., have been supplied since June 30, 1903.

The Toronto Industrial Exhibition Board has granted permission to the C.P.R., the G.T.R. and the Canadian Northern Ry., to erect a joint structure on the site of the present C.P.R. building on the exhibition grounds. It is proposed to erect a building to cost between $25,000 and $30,000.

An amendment to the Customs Tariff, 1897, is proposed by an act now under consideration by the House of Commons in respect to re-rolled steel rails. Canadian railways may send rails for re-rolling out of the country, and on bringing them back, after being re-rolled and weighing not less than 56 lbs. to the yard, for use on their own tracks, shall pay a duty of 25% on the cost of re-rolling, subject to such regulations as the Minister of Customs may make. This privilege can be abolished by order-in council on the establishment of a re-rolling mill in Canada.

Temiskaming and Northern Ontario Ry.

A special train was run over the line from North Bay to the end of steel, about 70 miles beyond New Liskeard, Ont., early in June, conveying members of the Ontario Government and Legislature. Tracklaying and ballasting is being proceeded with beyond this point, and is is expected that the line will be completed to the junction of the Black and Abitibi rivers by the fall. Survey parties are in the field between Lake Abitibi and Hudson Bay. The annual report of the Commissioners for 1905 contains reports of exploratory surveys through this country, and gives considerable information which will be useful during the construction of the line, when the extension north of the G.T. Pacific Ry. is decided upon.

The principal work which the Commission has in hand at present upon the first section of the line is the proposal to operate it by electricity. This question has been fully discussed by the Commission, reported upon by experts, and all the facts gathered, and the explanatory maps, plans, etc., have been submitted to the Government for consideration and decision. The recommendation is that electric traction shall be used on the line from North Bay to Englehart, 24 miles north of New Liskeard, a distance of 137 miles in all, and that power be developed from the Ragged Chute falls on the Montreal River, situated about nine miles from Cobalt. This water power is sufficient for the development of 8,000 electrical h.p., of which it is estimated that 5,000 h.p. will be required for the purpose. The balance would be available for sale by the Commission. Adjoining the Ragged Chute falls are the Fountain falls, where an additional 2,000 or 3,000 h.p. could be developed. Electric locomotives, it is proposed, shall be used, and estimates have been submitted to the Government for the supply of the same. The total estimated cost of the equipment sufficient to move the traffic within sight, is $1,000,000. One reason for the electrification of the line which is most strongly urged is that the line passes through the Temagami Forest Reserve, and that it is necessary to reduce the danger of fire to a minimum.

The Commisssioners have not yet decided to accept any tender for the construction of a short line to connect the present terminal at North Bay with the G.T.R. at Nipissing Jct. (May, pg. 257.)

Railway Legislation in Saskatchewan.—At its first session, the Legislature of the newly established Province of Saskatchewan passed an act respecting railways, and five acts incorporating companies to construct railways as follows: Canada Central Ry. Co.; Moose Jaw and Suburban Rapid Transit Ry. Co.; Regina and Saskatchewan Ry. Co.; Saskatchewan and Alberta Ry. Co.; Saskatchewan Central Ry. Co.

There is no foundation, we are officially informed, for the press report that the Department of Marine proposes to establish a marine school at Ottawa.

By an order-in-counell dated May 29, a maximum general freight tariff has been approved for the Intercolonial Ry. and the Prince Edward Ry.

It was stated at Ottawa at the annual convention of the Canadian Brotherhood of Locomotive Engineers, that U.S. Brotherhood Convention would probably hold its convention there in 1908.

E. Britton, heretofore District Passenger Agent, Pere Marquette Rd. at London, Ont., has been appointed Travelling Agent Freight and Passenger Departments Wisconsin Central Ry., in the state of Michigan, with headquarters at 827 Majestic Building, Detroit, Mich.

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TRADE AND SUPPLY NOTES.

The matter which appears under this heading is compiled, in most cases, from information supplied by the manufacturers of, or dealers in, the articles referred to, and in publishing the same we accept no responsibility. At the same time we wish our readers to distinctly understand that we are not paid for the publication of any of this matter, and that we will not consider any proposition to insert reading matter in our columns for pay or its equivalent. Advertising contracts will not be taken with any condition that accepting them will oblige us to publish reading notices. In other words, our reading columns are not for sale, either to advertisers or others.

The Canadian Westinghouse Co. has issued circular no. 1130, descriptive of its electro-static voltmeter.

The American Locomotive Co. has issued a pamphlet describing electric, motor and trailer trucks designed and built at its works.

J. J. Gartshore, Toronto, recently shipped a quantity of new steel rails for use on an electric railway at Aguascalientes, Mexico.

The Gartshore-Thompson Pipe and Foundry Co., has purchased some land on Stuart St., Hamilton, Ont., adjoining its present plant, upon which it is proposed to put up additional buildings.

The Hiram L. Piper Co., Ltd., manufacturers of railway signal lamps, headlights, lanterns, ship lamps, etc., Montreal, have removed from 12 St. Peter St. to larger premises at 17 to 23 Normand St.

The Cyclopean Iron Works, Jersey City, N.J., has issued an illustrated booklet descriptive of the different styles of Cyclopean dumping buckets for contractors' use, which are manufactured there.

The Canadian General Electric Co. has been licensed in Manitoba under the act dealing with foreign corporations, and B. G. McBurney, Winnipeg, has been appointed its agent for the province.

The American Locomotive Co. has issued a pamphlet on locomotive tests of the Pennsylvania Rd. by Dr. W. F. M. Goss, describing the locomotive tests and exhibits of that company at the St. Louis exposition.

The Pere Marquette Rd., having relaid the line between London and Port Stanley, Ont., J. J. Gartshore, Toronto, has purchased the 60 and 65 lb. rails which have been taken up and is offering them for relaying purposes.

The West Kootenay Power and Light Co. is adding to its equipment six Westinghouse raising transformers of 1,875 k.w., 2,200 to 60,000 volts, and 15 lowering transformers of 1,250 k.w., 60,000 volts to 2,200 and 440 volts.

The Canadian General Electric Co. has issued its bulletin 838, superseding 837, descriptive of its ceiling fan motors. It has also issued section 6 of its general supply catalogue describing and illustrating its sockets and receptacles.

The Locomotive and Machine Co. of Montreal, has completed two 2½ yard Atlantic type steam shovels for the Canadian White Co.; two similar steam shovels for the G.T. Pacific Ry., and has received an order for one 3½ yard Atlantic type steam shovel, from the G.T. Pacific Ry., for Oct. delivery.

The Trussed Concrete Steel Co. has prepared for issue two illustrated booklets, one dealing with Fire-proof Construction and the Kahn Trussed Bar, and the Practical Calculation and Application of Reinforced Concrete (part 1, calculation). The first mentioned is based on practical tests as set forth in various official reports, and includes comments on the San Francisco disaster. The second booklet has been compiled by the company's engineering department, and is specially arranged for the use of engineers and architects.

The Northern Electric & Mfg. Co., of Montreal, duplicated an order recently with the Canadian Westinghouse Co. for a 300 k.w. Westinghouse-Parsons turbo-generator unit, to be installed in its power house alongside of one of the same capacity now in service. The generator is a 220 volt, three phase, 7,200 alternation machine, operating at 3,600 r.p.m., and will be of the latest enclosed type, while the turbine will operate at 150 lbs. steam pressure with 100° superheat. The present turbine is operating part of the year condensing, and through the winter non-condensing, the exhaust steam being used during the winter for heating purposes.

Manual of Statistics for 1906.—The 28th annual volume of this publication has been issued by the Manual of Statistics Co., 25 West Broadway, New York. It contains 1,056 pages, and gives in compact form information relating to railways—steam and electric—steamship companies, telephone, telegraph and all classes of industrial concerns in the United States and Canada. The statistics showing the fluctuation in prices of the stocks of the different companies upon the chief exchanges are of value to financial men and others. The general information is well up-to-date, and the arrangement is convenient for reference. The price is $5.

Master Car Builders' and Master Mechanics' Conventions.—The annual conventions of these associations were held at Atlantic City, N.J., the Master Car Builders June 13 to 15, and the Master Mechanics June 18 to 20. At the former W. E. Fowler, Master Car Builder, C.P.R., who was Vice-President, 1905-06, was elected President for the current year. The attendance included either as members or guests, the following officials and members of their families:—Canadian Pacific Ry.—H. H. Vaughan, assistant to the Vice-President, Montreal; E. N. Bender, General Purchasing Agent, Montreal; Grant Hall, Assistant Superintendent of Motive Power, Winnipeg, Man.; Mrs. Hall, and Miss G. Hall; W. E. Fowler, Master Car Builder, Montreal; Mrs. Fowler, Miss R. Fowler, Miss E. Fowler; S. King, Assistant Master Car Builder, Montreal; G. H. Eaton, Assistant Master Car Builder, Winnipeg, Man.; J. B. Elliott, General Master Mechanic, Montreal, and Mrs. Elliott; C. R. Ord, Master Mechanic, McAdam Jct., N.B.; Mrs. Ord, Miss M. Ord, and Miss G. Ord; C. Kyle, Master Mechanic, Montreal, and Mrs. Kyle; R. Preston, Master Mechanic, Toronto Junction, Ont.; S. P. Robins, chief draughtsman; C. F. Rydberg, general foreman Angus shops, Montreal, and Mrs. Rydberg; W. H. Pearson, general car foreman, and Mrs. Pearson; J. W. Kelly, division car foreman. Central Vermont Ry.—A. Buchanan, jr., Superintendent of Motive Power, St. Albans, Vt.; and Mrs. Buchanan; J. Coleman, Master Car Builder, St. Albans, Vt., and Mrs. Coleman. Grand Trunk Ry.—W. D. Robb, Superintendent of Motive Power, Montreal, and Mrs. Robb; A. A. Maver, Master Mechanic, Montreal, and Mrs. Maver; Jas. Powell, chief draughtsman; G. R. Joughins, Superintendent Motive Power, I.C.R., Moncton, N.B.; A. Allan, Master Mechanic, Temiskaming and Northern Ontario Ry., North Bay, Ont.; G. McGow, Master Mechanic, Montreal Street Ry., and Montreal Park and Island Ry.; N. Graham, Master Mechanic, Montreal Street Ry., and Montreal Park and Island Ry.; Jas. Clarke, Master Mechanic, Quebec and Lake St. John Ry., Quebec, and Mrs. Clarke.

The Minister of Railways laid before the House of Commons, June 22, the subsidies which it was proposed to ask Parliament to pass. The list comprises 43 lines, covering a total of 2,885 miles. Included in the lines are many for which subsidies had previously been voted, but which have lapsed, and which it is now proposed to revote.

MAINLY ABOUT PEOPLE.

W. Mackenzie, President Canadian Northern Ry., sailed from New York for England June 16.

W. Whyte, Second Vice-President C.P.R., Winnipeg, has been elected a director of the Imperial Bank of Canada.

Mrs. G. M. Bosworth, wife of the Fourth Vice-President C.P.R., sailed from Montreal for Great Britain, June 14.

Hon. H. R. Emmerson, Minister of Railways and Canals, was the principal guest at a banquet at Moncton, N.B., June 3.

Mrs. Shaughnessy, mother of Sir Thos. G. Shaughnessy, President C.P.R., died in Milwaukee, Wis., June 23, aged 82.

Mrs. Beck, wife of the recently appointed Superintendent of Toronto Union Station, died in Toronto General Hospital June 15.

G. Bourgeois, Assistant Engineer, party 38, of the G.T. Pacific Ry., was drowned by the upsetting of a canoe on Lake Abitibi recently.

Mrs. H. B. Rathburn, daughter of the late John Bell, K.C., Chief Solicitor G.T.R., was married June 6, to Dr. W. Gibson, of Toronto.

G. H. Ham, of the C.P.R. headquarters staff, was presented with a gold watch by the members of the Ottawa Press Gallery, June 2.

C. R. Hosmer, director C.P.R., Mrs. and Miss Hosmer have returned to Montreal after a tour through Great Britain, France and Spain.

D. E. Brown, General Agent C.P.R. at Hong Kong, is spending a vacation in England, having arrived in Montreal from China early in June.

Miss E. McGuigan, daughter of F. H. McGuigan, Fourth Vice-President G.T.R., was married at Montreal, June 5, to I. E. Vernon, of Portland Me.

Alex. Stronach, who was appointed Master Mechanic C.P.R., at Winnipeg, in 1881, and retired from active work in 1903, died there June 9, aged 73.

W. Warnick, train dispatcher Toronto, Hamilton and Buffalo Ry., Hamilton, Ont., was married to Miss K. Campbell, at Burlington, Ont., June 5.

Miss Maud Williams of Winnipeg, sister of Mrs. D. D. Mann, was married in Toronto, June 30, to Professor J. McGregor Young of Toronto University.

C. R. Hosmer, director C.P.R., was elected a director of the Montreal Light, Heat and Power Co., June 5, succeeding C. E. L. Porteous, resigned.

J. J. Hill, President Great Northern Ry., arrived in Montreal June 11, and left immediately in his yacht for a trip salmon fishing in the Gulf of St. Lawrence.

Jas. Ross, Montreal, who expected to have reached Montreal early in June from his European tour, was taken ill in London, and spent some weeks in a hospital there.

F. Shaughnessy, son of Sir T. G. Shaughnessy, President C.P.R., arrived in Montreal from his tour around the world, June 8. He was accompanied by his tutor, C. T. Anstey.

M. P. Davis, railway contractor, Ottawa, who is one of the contractors of the Quebec Bridge and Ry. Co., has purchased a number of shares in the Le Soleil Newspaper Co., Quebec.

A. Kennedy, one of the oldest locomotive engineers of the C.P.R., at Winnipeg, was elected Grand Engineer of the Brotherhood of Locomotive Engineers, at the recent convention at Memphis, Tenn.

The engagement is announced of W. B. Grant, of Nelson, B.C., son of W. J. Grant, Commercial Agent C.P.R., Hamilton, Ont., to Miss H. P. Hall, daughter of the late J. G. Hall, of Port Hope, Ont.

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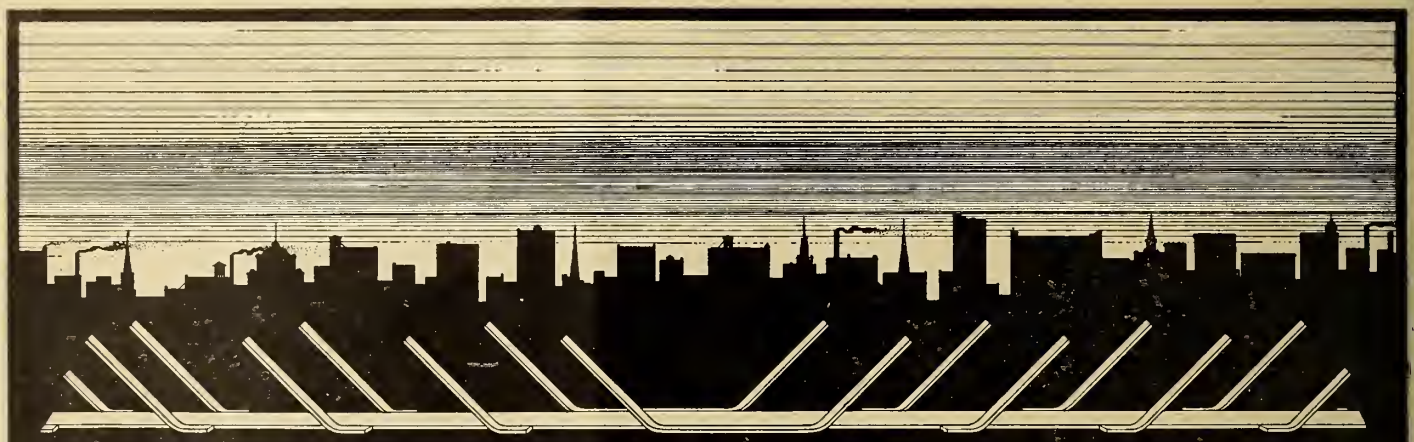

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J. Davidson was presented with a silver tea service by the Superintendent and agents of the Quebec and Lake St. John Ry., on the occasion of his wedding to Miss E. Langford at Montmorency Falls, Que., June 6.

Mrs. Thos. Tait, wife of the Chairman of the Railway Commissioners of Victoria, Australia, and Miss Tait have gone to England for some months with Mrs. Tait's parents, G.R.R. and Mrs. Cockburn, of Toronto.

Sir Melbourne Tait, who has been promoted to the Chief Justiceship of the Superior Court of Quebec, is the father of Thos. Tait, formerly of the C.P.R., and now Chairman of the Victorian, Australia, Railway Commission.

Wm. Dunn and George Edwards were sentenced to imprisonment for life, and L. Colquhoun to imprisonment for 25 years, at Kamloops, B.C., June 1, for holding up and robbing a C.P.R. train near that town recently.

Miss Agnes N. J. Keating, youngest daughter of E. H. Keating, C.E., ex-Manager of the Toronto Ry., was married in Weymouth, Eng., May 21, to Lieut. G. W. Denison, youngest son of Col. G. T. Denison, Toronto.

W. F. Egg, formerly City Passenger Agent C.P.R., Montreal, and latterly in the General Passenger Department there, has left the company's service and has been appointed special agent of the Montreal Monarch Life Assurance Co.

F. W. Henshaw, who died at Montreal June 6, was for many years engaged as a general shipping agent there. Col. F. C. Henshaw, Montreal, director of a number of companies connected with transportation interests, is a son.

Chief Inspector J. W. Murray of the Ontario Criminal Justice Department, who died in Toronto, June 12, came to Canada in 1873 as head of the detective staff of the Canada Southern Ry. and was appointed a Provincial detective 1875.

It is proposed to erect a statue at Hamilton, Ont., to W. Sherring, the G.T.R. brakeman who won the Marathon race in Greece recently. E. Fisher, General Superintendent Toronto, Hamilton and Buffalo Ry. there, is at the head of the movement.

While C. J. Jackson, agent of the North Shore Navigation Co., Whitby, Ont., and Mrs. Jackson were out driving at Pickering, June 3, they were run into by an automobile. The occupants of the buggy were thrown out and escaped serious injury, but the horse was killed.

R. B. Van Horne, son of Sir Wm. Van Horne, Chairman of the Board C.P.R., was married in Montreal, June 12, to Miss E. B. Molson, daughter of Dr. Molson. Mr. and Mrs. Van Horne spent their honeymoon in a trip to the Pacific coast on Sir William's private car.

D. Hobbs, who had charge of the custom house work for the C.P.R., absconded from Montreal in Oct., 1905, when charged with having falsified invoices by which he benefited to the extent of $40,000 at the expense of the Government, was arrested in New York, June 6, and will be tried at Montreal.

A. Willson, who died in Toronto, May 26, aged 73, was engaged on the engineering staff during the construction of the G.T.R. between Kingston and Cornwall; and subsequently on the Brockville and Ottawa Ry. From 1866 until the end of 1904 he was connected with the Canada Co., latterly as commissioner.

C. M. Hays, Second Vice-President and General Manager G.T.R., was presented with a gold loving cup, by the officers of the company, on the occasion of his 50th birthday, recently. The presentation was made at a dinner to which Mr. Hays was invited by the officers of the G.T.R. and the G.T.R. subsidiary companies.

Reports from St. John's, Nfld., state that a settlement has practically been made of the differences between the Reid Newfoundland Co., and A. B. Morine, its former solicitor, and that as a result the action to recover $52,000 for professional services will be withdrawn. It is reported that Mr. Morine will leave St. John's and reside for the future in Toronto.

Sutherland, Kenning & Cleary, solicitors, Windsor, Ont., give notice of application to the Surrogate Court of the County of Essex, Ont., for a grant of ancillary letters probate of the will of Lucy Ross Bosworth, late of Montreal, wife of G. M. Bosworth, Fourth Vice-President C.P.R., who died at Montreal June 15, 1902, leaving property in the County of Essex to be administered.

C. B. Foster, District Passenger Agent, C.P.R., Toronto, was married on June 27 to Miss M. B. McKensie, eldest daughter of Alex. McKensie, of St. Paul, Minn, formerly of Ontario. On the eve of leaving Toronto for the ceremony, Mr. Foster was given a cabinet of silverware by his Toronto staff and outside employes of the company, a silver tea service by representatives of other transportation companies, and a cut glass service by Toronto newspaper men.

The funeral of W. H. Harper, C.P.R. city ticket agent, Chatham, Ont., May 24, was largely attended by railway men from all parts of the province. The Canadian Ticket Agents' Association was represented by the President, W. Bunton, G.T.R. city ticket agent, Peterborough, Ont., and the Secretary-Treasurer, E. de la Hooke, G.T.R. city ticket agent, London, Ont. The Dominion Express Co., of which Mr. Harper was also agent at Chatham, was represented by W. Walsh, assistant to the President and General Manager, Toronto.

Hon. A. Beck, London; Hon. J. S. Hendrie, Hamilton, and C. B. Smith, Toronto, have been appointed members of the Hydro-Electric Power Commission by the Ontario Government. The commission is established under the act passed at the last session of the Legislature to carry out the Government policy of supplying municipalities with cheap electrical power. It has authority to fix rates; to expropriate existing plants; to deal with complaints as to rates; to make investigations, and to report the results in regard to any water powers or water power privileges.

F. J. Watson, whose portrait appears on the first page of this issue, was born Jan. 12, 1866, and was educated in Toronto. He entered railway service 1884, since which he has been consecutively to 1885, secretary to Assistant General Freight Agent Northern and Northwestern Ry.; 1885 to 1888, secretary to General Freight Agent, same road; 1889 to 1891, waybill inspector G.T.R.; 1891 to 1892, Travelling Freight Agent, Western Division, G.T.R.; 1892 to 1896, Travelling Freight Agent, Eastern Division G.T.R.; 1896 to 1897, chief clerk Freight Department Southern Division G.T.R.; 1897, Division Freight Agent, Northern Division G.T.R.; 1897 to date, Division Freight Agent G.T.R., Montreal

A. A. Tisdale, who has been appointed Assistant to the Fourth Vice-President, G.T.R., was born at Mount Vernon, Ont., Mar. 8, 1874, and entered railway service in Sept., 1889, serving until July, 1892, in various capacities in the G.T.R. local freight offices, Hamilton, Ont. In July, 1892, he was transferred to the offices of the Chief Engineer as secretary, and remained in the same capacity when the engineering offices were moved to Montreal, Feb., 1896. Appointed secretary to F. H. McGuigan, then General Superintendent G.T.R., Montreal, May, 1899, Mr. Tisdale has remained with him in his successive positions as Manager and Fourth Vice-President, acting as chief clerk since Jan., 1905.

The question of the financial relations between C. F. Wenham, formerly connected with the C.P.R. passenger department at Chicago, Ill., and the company are being investigated in the courts. The subject matter of the complaint arises out of the sale of tickets for the Elder-Dempster steamers prior to their transfer to the C.P.R. He was arrested in New York on a charge of forgery, and after being kept in custody there for nearly three weeks he was released June 4, but was immediately rearrested on six indictments found at Chicago, charging him with stealing over $50,000 from the C.P.R. Two trunks, said to contain securities valued at $60,000, were seized at Hammond, Ind., June 22, by C.P.R. detectives. The trunks are stated to have been sent out from Chicago by friends of C. F. Wenham.

W. D. Cunneyworth, Freight and Passenger Agent Temiskaming and Northern Ontario Ry., was born at Bronte, Ont., Oct. 22, 1865, and entered railway service 1879, starting as switchman on the Toronto, Grey and Bruce Ry. at Orangeville, remaining with the C.P.R. when it took over the line. He became night operator at Owen Sound in 1884; was transferred to the ticket office there in 1887, becoming station agent in 1892, being located successively at Finch and Winchester to Oct., 1894. He joined the Canada Atlantic Ry. staff in Oct., 1894, at Douglas, and followed the construction of the line to Parry Sound, and was agent at Whitney in 1898; was General Freight and Passenger Agent Pembroke Southern Ry. 1898 to 1900, when it was taken over by the Canada Atlantic Ry., and remained at Pembroke as General Agent C.A. Ry. until Mar., 1906, when he was appointed to his present position.

W. E. Mullins, who has been appointed General Manager Costa Rica Ry., and the Northern Ry. of Costa Rica, at San Jose, Central America, was born in Stratford, Ont., Aug. 13, 1870, and entered railway service on the G.T.R. July, 1887, being employed in the freight and passenger departments until 1891, since which his record has been: 1891 to 1893, Assistant Mechanical Superintendent's office, London, Ont.; 1893 to 1897, Assistant Superintendent's office, London, Ont.; 1897 to 1899, chief clerk to Superintendent, Middle Division, Toronto; 1899 to 1902, secretary to the Vice-President and General Manager Central Vermont Ry., St. Albans, Vt.; 1902 to May, 1906, Superintendent of Transportation, Central Vermont Ry., St. Albans, Vt. Of the two railways named, of which Mr. Mullins is General Manager, the Northern Ry. is controlled, and the Costa Rica Ry. is leased, by the United Fruit Co., Boston, Mass., the first-named line extending from Limon, on the Altantic coast, to Alajuca, passing through San Jose, the capital, and including branches has a length of about 140 miles. There is a line extending from Jiminez on this line to the south shore of Lake Nicaragua, about 90 miles, and there is another line constructed as the Pacific Ry., from San Jose to Tirivis, on the Pacific coast, about 70 miles, one of which would cover the lines of the Costa Rica Ry. The United Fruit Co. also owns some miles of railway in its plantations, altogether 174 miles in four Central American republics and on the islands of Jamaica and Cuba, the separate mileages not being given in its reports. The principal traffic handled on the railways in Costa Rica are coffee, bananas, rubber, dyewoods, lumber and hides. There is a considerable passenger trade on the Northern Ry.

Harry de la Hooke, who died at his residence, Chatsworth Lodge, Chatsworth Road, Brighton, Eng., on May 11, aged 66, was a brother of E. de la Hooke, City Ticket Agent G.T.R., London, Ont., and Secretary-Treasurer Canadian Ticket Agents' Association. The London, Eng., Times, of May 16, said: "At the monthly meeting of the London

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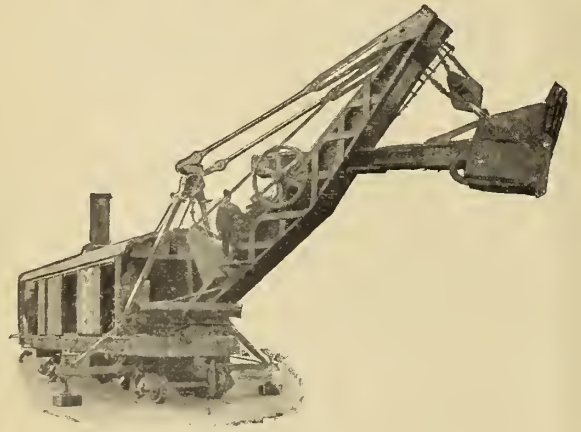

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Weighs only 300 lbs. yet is strong and durable.
Can be readily lifted and carried by two men.
Can be run at any speed required up to 30 miles per hour.
Can be quickly taken apart for storage in baggage car.
Carries comfortably three passengers and luggage.
Is guaranteed to take any railway grade with ease.
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County Council, held yesterday at the county hall, Spring Gardens, the Chairman announced that he had received news of the death at Brighton of Mr. H. de la Hooke, who was for seven years clerk of the council. He had in the name of the council sent an official letter of condolence with the relatives of the deceased." In its obituary column the London Times had the following on May 25:—"At a recent meeting of the London County Council sympathetic reference was made to the death of Mr. Harry de la Hooke, which occurred recently at Brighton, in his 67th year, after many months of wasting illness. Mr. de la Hooke, who was in the service of the Metropolitan Works, became the clerk of the London County Council on its institution. When he retired, some ten years ago, he had served London faithfully and zealously and with conspicuous ability for 31 years. He was not only an upright and able official; he combined with business qualities rare gifts of intellect and wide culture; he was an assiduous student, especially of French history and memoirs. Few can have possessed a more thorough knowledge of the 18th century and of the early 19th century. Few can have been better acquainted with the charm and the subtleties of the French language. He was a zealous champion of the purity of English, and he contributed several letters to the Times in defence of our often ill-used mother tongue. The few who were privileged to know him intimately will mourn in Mr. de la Hooke one whose kind and courteous ways, whose gentle and stainless character, whose stately simplicity of life and of manner, won and preserved their affectionate regard."

Orders by the Railway Commissioners.

(*Continued from page 375.*)

1116. May 10.—Authorizing the Michigan Central Rd. to construct a spur line across the Niagara Falls, Wesley Park and Clifton Tramway tracks at Niagara Falls, Ont.

1121. May 23.—Granting permission to the Toronto and Niagara Power Co., to carry its power transmission line across the G.T.R. tracks at Toronto Jct., Ont.

1122. May 23.—Granting permission to the Toronto and Niagara Power Co. to carry its power transmission lines across the C.P.R. tracks at Lambton Park, and north of Toronto Jct., Ont.

1123. May 26.—Sanctioning location plans of the Atlantic, Quebec and Western Ry. from a point in Hope tp. to Port Daniel, Que., 10 miles.

1126. May 26.—Granting leave to the Brandon, Saskatchewan and Hudson's Bay Ry. to cross 12 highways at rail level between mileages 30.22 and 42, and to make over crossings at mileage 41.83 and mileage 43.32.

1127. April 11.—Authorizing the Brandon, Saskatchewan and Hudson's Bay Ry. to cross the C.P.R. tracks at rail level, near Carroll, Man., upon the usual conditions as to protective devices, etc.

1128. June 1.—Extending the time within which the James Bay Ry. may instal interlocking devices, etc., at its crossing of the G.T.R. tracks near Washago, Ont.

1130. May 31.—Sanctioning location plans of the Canadian Northern Ry. from Etiomami, Sask., to Pas Mission, 89.1 miles.

1131. May 31.—Sanctioning location plans for the G.T. Pacific Ry. from east line tp. 39 n., r. 21 w., for 56.039 miles.

1133. May 31.—Sanctioning amended location of G. T. Pacific Ry. from sec. 34, tp. 21 n., r. 4 w., mileage 60, to mileage 109.52, Assiniboia district, Sask.

1134. May 8.—Authorizing the G.T.R. to construct a spur line in Hamilton to Duff & Sons' packing house.

1135. May 26.—Granting permission to the Midland Ry. of Manitoba to carry its tracks across the C.P.R. line at Plum Coulee, Man., upon the usual conditions as to protective appliances.

1136. June 1.—Authorizing the Sarnia Township Council to construct a highway across the G.T.R. tracks upon a portion of the Indian Reserve, Ont., the work to be done by the G. T. R. at the cost of the township.

1137. June 1.—Granting permission to the C.P.R. to operate its trains across the G.T.R. Penetanguishene branch, Ont.

1139. June 5.—Authorizing the Windsor, Essex and Lake Shore Rapid Ry. to cross at rail level the C.P.R. tracks in Sandwich West tp., Ont., upon the usual conditions as to the protection of the crossing.

1140. June 5.—Sanctioning location for the G. T. Pacific Ry. from east boundary, sec. 35, tp. 36, r. 16 w., mileage 69.378, to mileage 104.333, West Saskatchewan district, Sask.

1159. Nov. 8, 1905.—Authorizing the G. T. R. to construct a spur line across Logan Ave., Toronto.

1163. June 6.—Sanctioning detail plans for overhead bridge to be constructed by the C.P.R. across the Canada Atlantic Ry. tracks in Foley tp., near Parry Sound, Ont.

1165. May 31.—Authorizing the Magnetawan River Ry. to construct a spur line in Burk's Falls, Ont.

1167. June 8.—Granting permission to the Progressive Telephone Co. to carry its telephone lines across the C.P.R. tracks at three points west of Fort Erie, Ont.

1169. June 7.—Authorizing the Town Council to lay a sewer under the G.T.R. tracks at Queen St. N., Berlin, Ont.

1171. June 7.—Authorizing the City Council to lay a gas main under the G.T.R. tracks between Norfolk and Gordon streets, Guelph, Ont.

1172. June 7.—Authorizing the Seaforth, Ont., Electric Light, Heat and Power Co., to carry two electric light wires across the G.T.R. tracks there.

1173. May 5.—Granting permission to the G.T.R. to construct a spur line in Walkerville, Ont.

1174. Dec. 14, 1905.—Re Balanced Ration Mfg. Co. See pg. 403.

1175. June 6.—Re minimum rate for charcoal. See pg. 403.

1176. June 7.—Sanctioning change of location of spur line at Chatham, Ont., authorized to be constructed by the Board's order of Sept. 21, 1905.

1177. June 9.—Sanctioning change of location of James Bay Ry. at mileage 71 from Toronto, owing to the provisions of station facilities at Brechin, Ont.

1178. June 9.—Approving plans for bridge across the Shawnaga River, Burpee tp., at mileage 16.9 from Parry Sound, for the James Bay Ry.

1179. June 9.—Sanctioning deviation from located line through Ferguson and Burpee tps., mileage 9.3 to mileage 22.9 north of Parry Sound.

1180. June 9.—Approving plans of deviation from located line, from the north shore of French River to the north boundary of Cox tp., Ont., mileage 68 to 81, James Bay Ry.

1182. June 13.—Authorizing the Canadian Northern Ry. to expropriate certain lands in St. Boniface, Man., in connection with the diversion of Pembina highway.

1183. June 8.—Recommending that the Governor-in-Council approve of the agreement for the purchase of the assets of the Vancouver, Westminster, Northern and Yukon Ry. Co., by the Vancouver, Westminster and Yukon Ry. Co.

1184. June 12.—Sanctioning location of James Bay Ry. through the county of Argenteuil, Que., from mileage 11 to mileage 19.6.

1186. June 16.—Authorizing E. Burtt of Burtt's Corners, N.B., to carry an electric power wire across the C.P.R. tracks at Cardighan, N.B.

1202. June 16.—Authorizing the C.P.R. to construct a branch and two spurs, about 2,332 ft. long in all, to the Superior Portland Cement Co.'s Works, near Orangeville, Ont.

1203. June 16.—Granting permission to the C.P.R. to construct a spur line 868 ft. long to the Consumers' Box and Lumber Co., Toronto.

1204. June 15.—Authorizing the C.P.R. to make certain changes in connection with constructed double track and changing grade between Ste. Anne and Vaudreuil, Que.

1205. May 4.—Granting permission to the Windsor, Essex and Lake Shore Rapid Ry. to carry its tracks across the Pere Marquette Rd., near Pelton, Ont., on the usual conditions as to provision of protective devices, etc.

1209. May 4.—Granting a similar permission to the same company to cross the Pere Marquette Rd. tracks at Kingsville, Ont.

1214. June 7.—Authorizing the Guelph and Goderich Ry. to expropriate land for yards, freight sheds, etc.

1216. June 18.—Sanctioning location plans for a line from Brandon to near Virden, Man., 58.5 miles, for the Canadian Northern Ry.

1218. June 18.—Granting permission to the C.P.R. to carry the tracks of its leased line—the Columbia and Western Ry.—across a number of opened and unopened streets in Rossland, B.C.

1219. June 18.—Authorizing the North Shore Ry. to construct a double track branch line in Quebec, and other lines from its main line to the Louise Embankment, crossing several streets.

1220. June 18.—Granting permission to the Norfolk and Tillsonburg Telephone Co. to carry its telephone wires across the G.T.R. tracks at Tillsonburg, Ont.

1221. June 18.—Sanctioning plans showing change of alignment and additional grounds for station purposes at mileage 37 south from Parry Sound, Ont., for the James Bay Ry.

1222. June 18.—Granting permission to the Haldimand Gas Co. to carry a gas main under the G.T.R. tracks at Cedar St., Dunnville, Ont.

Canadian Northern Railway Construction.

Atikokan Branch.—A branch 5 miles in length is nearly completed from near Hematite, Ont., 131.6 miles west of Port Arthur, for the purpose of tapping the Atikokan Iron range. The branch is expected to be completed during the summer. The mine is equipped with machinery, and will be in a position to deliver ore for conveyance to Port Arthur, where the smelter is situated, as soon as the branch is completed.

Winnipeg.—In connection with the company's plans at and around Winnipeg, the Railway Commission has approved of the expropriation of certain lands in the parish of St. Boniface, for the purpose of its railway, and in connection therewith to divert a portion of the Pembina highway. The negotiations in connection with the establishment of a union station for the C.N.Ry. and the G.T. Pacific Ry. are still progressing.

Emerson to Vassar.—The branch line which was completed from Emerson to Ridgeville, Man., 9.9 miles, in 1904, is being carried through to Vassar, on the main line between Port Arthur and Winnipeg, 3544.

BRIDGES

RAILWAY
HIGHWAY
SWING

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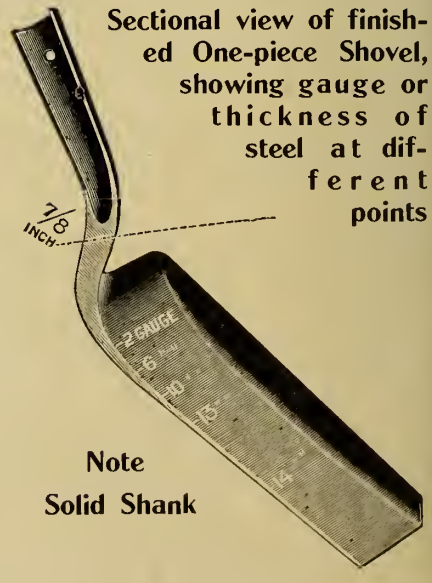

Sectional view of finished One-piece Shovel, showing gauge or thickness of steel at different points

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miles west of Port Arthur. The line will be about 60 miles long, and will enable the C.N.R. to carry grain from Southern Manitoba to Port Arthur, without taking it round by Winnipeg, thereby effecting a considerable saving in haulage. Construction is well advanced.

Hartney to Regina.—The Hartney section, which extends to Virden, Man., it is understood is to be extended to Regina, Sask., at an early date. The company's right-of-way agent arrived in Regina, June 4, having been engaged in purchasing land for the right of way between the two points. A number of transfers of property in the southwestern part of Regina were subsequently made. The Regina Board of Trade has been urging the Saskatchewan Government to arrange for the guarantee of bonds of the line so that construction may be proceeded with this summer. In connection with this branch the C.N.R. has obtained the approval of the Railway Commissioners for a line from Brandon to the Virden-Regina line at sec. 10, tp. 9, r. 28, w.p.m., 58.5 miles. This line would connect up the line recently completed from Portage la Prairie to Brandon, with the Morris-Brandon branch, near Virden, Man.

Portage la Prairie southerly.—At a meeting of the Local Board of Trade held May 24, it was announced that the C.N.R. had decided at an early date to start the construction of a line from Portage la Prairie southerly to connect with its Morris-Brandon branch, south and east of Carman, and that it had been arranged that Portage la Prairie was to be made a divisional point. The projected line will be about 80 miles in length. It is said that the C.N.R. has expressed a desire to construct a line from Morris easterly to a junction with its Port Arthur-Winnipeg line, if the Provincial Government would build a bridge across the Red River at Morris. The construction of this piece of line—about 100 miles in length—would materially shorten the distance between Portage la Prairie and Port Arthur, and in connection with the lines westerly from Morris—constructed and projected—would give a direct connection from Port Arthur, Ont., to Regina, Sask., passing through Southern Manitoba.

Delta Branch.—A branch line from Portage la Prairie at present terminates at Delta, on the southern shore of Lake Manitoba, 14.8 miles. It is said that this is to be extended along the west shore of the lake to a junction with the projected extension of the Oak Point branch to Dauphin across the Narrows of the lake.

Rossburn Section.—A branch line is in operation from Rossburn Jct. to Rossburn, Man., 78.7 miles, and it is said that it is intended to extend this line to Kamsack, Sask., on the Edmonton line, a distance of 100 miles.

Swan River Branch.—Construction has been going on since 1904 on a branch from Thunder Hill Jct., 96.6 miles from Gilbert Plains Jct. This branch is being operated for 20.1 miles, and grading has been done for some further distance. This branch, it is understood, is to be extended to Battleford. It will therefore run about midway between the Gilbert Plains-Edmonton line, and the Prince Albert line.

Hudson Bay Line.—The location plans for the construction of a line from Etoimami, Sask., 200.6 miles from Gilbert Plains Jct., to the Pas Mission, Sask., and Keewatin, 89.1 miles, have been approved by the Railway Commissioners. Grading has been going on for some months on this line, James Cowan being the contractor. Survey work is being prosecuted between Pas Mission and Hudson Bay. Some years ago the Dominion Government made a grant of 12,800 acres of land a mile for the construction of such a line, and a charter was granted to a company for its construction. The original company was the Winnipeg and Hudson's Bay Ry. and Steamship Co., the title of which was subsequently changed to the Winnipeg Great Northern Ry., and some agreements were made with the Lake Manitoba Ry. and Canal Co., respecting the transfer of a portion of the subsidy. Under these charters, some mileage was constructed and is now owned and operated by the Canadian Northern Ry. Part of this mileage is the Oak Point branch, 53.6 miles, which is part of the line as originally planned. It is said that this line is to be continued northerly from Oak Point to the Narrows of Lake Winnipeg, crossing there and joining the present main line at Dauphin, a distance of about 200 miles.

Prince Albert line.—A regular train service is being operated to Prince Albert, Sask., 360.5 miles from Gilbert Plains Jct., Man. It is said to be intended to carry this line further west, so as to connect with the Edmonton line, a few miles east of Battleford. This means the construction of 150 miles of line, but it is not likely that there will be any work done for some time.

Prince Albert to Battleford and Edmonton.—A recent article in the Toronto Globe contained the following paragraph in an article dealing with railway projects, etc., in the prairie country: "There is a charter for a railway running from Prince Albert to Battleford and Edmonton, on the south side of the Saskatchewan, and it is surmised that the C.N.R. is at the back of the enterprise; about 375 miles."

Branch to Saskatoon.—A branch line of about 17 miles has been projected from a point on the Edmonton line into Saskatoon, Sask.

Branches from Edmonton.—A branch line is being graded from Edmonton, Alta., to Lac St. Anne, a distance of about 50 miles, and Edmonton reports June 1, stated that the grading had been completed for 32 miles.

Grading is also in progress on what is described as the Manville branch. A large bridge is under construction over the Sturgeon River near St. Albert. Edmonton reports state that the steel laying gangs were expected to start work on these branches early in July.

National Transcontinental Railway.

In the House of Commons, June 12, the Minister of Railways made some explanations in regard to the vote for $110,000,000 which was asked for the construction of the line from Moncton, N.B., to Winnipeg, Man. The Commissioners for construction were in a position to ask the Government to approve of the route from Moncton to Miramichi, or from Moncton to Nashwaak, whenever the back route or the river route should be decided upon. An order-in-council would then be passed approving of the whole route and the line from Moncton to Quebec would be put under contract. It was expected to have this section completed as soon as the Quebec-Winnipeg section. The preliminary and location surveys had been made between Quebec and Winnipeg, the cost being about $1,000,000, and the complete revision of these surveys would cost an additional $600,000. A portion of the surveys which the G.T. Pacific Ry. made east of Winnipeg, which cost the company about $1,000,000, had been taken over by the Government for $350,000. The gradient between Moncton and Winnipeg would be 4-10 of 1% eastbound, and a maximum of 6-10 of 1% westbound, with a maximum curvature of 4°. The total distance would be about 1,800 miles, of which 395 miles are at present under contract.

Tenders are under consideration for the supply of 65,000 tons of steel rails, with the necessary fastenings for the same, and an Ottawa despatch states that it is likely the contract will be divided between the Algoma Steel Co., Sault Ste. Marie, Ont., and the Dominion Iron and Steel Co., Sydney, N.S.

The contractors for the 150 miles of line between the Quebec Bridge northern approach and La Tuque, have let a sub-contract to M. P. Davis to construct 50 miles of the line from the Quebec Bridge towards La Tuque, and will themselves do the work on the other 100 miles. Mr. Davis started work on June 6 at the bridge. The general contractors, Hogan & Macdonald, who have associated M. J. O'Brien with them, are also at work, having started at Reid's, on the Great Northern Ry., and are working in both directions. They also propose starting work at La Tuque. Considerable progress is reported upon construction on the 245 miles from Winnipeg easterly. Guy Campbell, Ottawa, has been given a sub-contract for five miles of rock work; and sub-contracts are also reported let to A. Herbert, 20 miles prairie work; W. Wardsop, 15 miles; F. W. Smith, two miles of solid rock-cutting.

GRAND TRUNK PACIFIC RAILWAY.

A meeting of shareholders was held in Montreal, June 14, to ratify an issue of $15,000,000 of debenture stock, under the agreement with the Government, The act authorizing the issue of $25,000,000 has been passed by the Dominion Parliament, and the resolution is a formal one necessary to ratify the by-law providing for the issue.

The contractors for the line from Winnipeg to Portage la Prairie, Man., are the McDonald-McMillan Co., who are well advanced with the grading on the Portage la Prairie-Touchwood Hills portion. A start has been made upon the line near Winnipeg, and a sub-contract has been let to McIntosh Bros., Petrel, Man., who also have started construction. Tracklaying is being gone on with from Portage la Prairie westerly. The rails, 80-lb. to the yard, are being delivered at Portage la Prairie by the Canadian Northern Ry., and it is expected to get in 50,000 tons by Sept. 1. The Canadian White Co., Montreal, which has the contract to grade from the Touchwood Hills to Saskatoon, had its plant delivered at the beginning of June, and has several gangs of men actively engaged; while Foley Bros., Larson & Co. are rushing work from Saskatoon to Edmonton. The Dominion Government engineers, who have been going over the route at the Edmonton end, state that the proposed gradient into that city by way of Strathcona is as favorable as that by the Clover Bar way, and that a better gradient into Strathcona can be obtained by the south of Cooking Lake than by Clover Bar. The Government will decide upon the route to be adopted at an early date. The location plans and profiles for practically the whole of the route to within about 50 miles of Edmonton have been approved by the Railway Commissioners, as well as by the Government. West of Edmonton surveys are still in progress, and at Prince Rupert, on the Pacific coast, the preliminary work of laying out the new townsite, etc., is in progress.

An order for 150,000 tons of steel rails for the G.T. Pacific Ry. is reported to have been placed with the Dominion Iron and Steel Co., Sydney, N.S.

GRAND TRUNK PACIFIC RY. BRANCHES.

The G.T.P. Ry. interests have a bill before the Dominion Parliament seeking the incorporation of a company with the title of the Grand Trunk Pacific Branch Lines Co. for the purpose of constructing branch lines. The various lines proposed raised considerable discussion when the bill was before the House of Commons Railway Committee, and the schedule of lines finally approved of follows:

(1) From near Edmundston, N.B., to Riviere du Loup, Que., 81 miles; (2) A line into Montreal, via Joliette, Que., about 250

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miles; (3) a line into Ottawa, about 250 miles; (4) a line into Orillia, Ont., about 300 miles; (5) a belt line round Winnipeg, to connect with other railways and outlying districts, about 20 miles; (6) from Winnipeg to the International boundary within 25 miles east or west of the Red River, about 60 miles; (7) from Neepawa to the main line about 20 miles; (8) from the main line to Brandon and Regina; and from Brandon to the International boundary near Turtle Mountain; (9) from tp. 22, r. 6, w. 2nd m., to Yorkton and Fort Churchill, on Hudson Bay, 625 miles; (10) from tp. 22, r. 7, w. 2nd m., to Regina, thence to North Portal, about 220 miles; (11) a line to Prince Albert, about 100 miles; (12) a line to Battleford, about 45 miles; (13) a line through Calgary to the International boundary near Coutts, about 350 miles; (14) a line into Vancouver, about 390 miles; (15) a line from the north shore of Vancouver Island to Victoria, about 300 miles, (16) a line to Dawson, Yukon, about 900 miles

Railway Commissioners' Freight Orders.

The Board of Railway Commissioners have issued the following orders:

1174. Meeting at Montreal, Dec. 14, 1905. In the matter of the applications of C. V. Jameson and the Balanced Ration Manufacturing Co., of Montreal, under the provisions of the Railway Act, 1903, for reduced freight rates on highly compressed hay, in carloads, and on compressed mixed fodder, described as "the balanced ration," in carloads: Upon hearing the parties to this application and the representatives of the G.T.R. Co., and the C.P.R. Co., and what was alleged, and upon the report of its Chief Traffic Officer, the Board orders that the rate of 10½ cents per 100 lbs., being the rate at which the said railway companies have offered to carry the balanced ration, otherwise compressed feed, or fodder, in carloads, from Montreal and points within the Montreal terminal group of stations to Boston, Boston Junction, and Mystic Wharf, Mass.; Portland, Me., and St. John and West St. John, N.B.; when consigned through to foreign ports, with a reasonable minimum weight limited by the cubic capacity of the car, be, and the same is hereby, approved; that the rate and minimum weight on compressed hay from Montreal and points within the Montreal terminal group of stations to Boston, Boston Junction, and Mystic Wharf, Mass.; Portland, Me.; and St. John and West St. John, N.B.; aforesaid, when consigned through to foreign ports, shall not exceed those which have been or may be established for the same service on chopped feed or compressed fodder, or that have been or may be established on chopped hay in compressed bales. That the rates from other shipping points in the Province of Quebec, south of the St. Lawrence River, in what is commonly known as the "south and east territory," shall not exceed the rate from Montreal, as aforesaid, and that from points in the Province of Quebec, north of the St. Lawrence River, the same difference, or differences, may be added as is, or are, at the same time added to the published rate from Montreal to the said Atlantic ports on hay and straw for export.

MINIMUM RATES FOR CHARCOAL.

Meeting at Ottawa, June 6, 1906. In the matter of the application of J. S. Dignam, of Toronto, under the provisions of the Railway Act, 1903, for an order directing the C.P.R. Co. and the G.T.R. Co., to reduce their minimum weight for charcoal, in carloads, so that it shall not exceed the capacity of the car. Upon reading the application herein, the answer filed on behalf of the railway companies, and the reply of the applicants; and upon the report of its Chief Traffic Officer, the Board orders that the C.P.R. Co. is hereby directed to revise its rates on charcoal from Sault Ste. Marie, Ont., so as to provide, in connection therewith, a uniform minimum carload weight not to exceed 24,000 lbs. per standard car; and the Board further orders, that all the railway companies subject to its jurisdiction are hereby enjoined from prescribing in their special or competitive tariffs any higher minimum carload weight for charcoal than that prescribed by the Canadian Freight Classification.

Ontario Railway and Municipal Board.

The Ontario Government has made the following appointments to the Railway and Municipal Board, established by an Act passed at the last session of the Legislature: Chairman, Jas. Leitch, K.C., Cornwall; Commissioners, A. B. Ingram, St. Thomas; H. J. Kittson, Hamilton; Secretary, H. C. Small, barrister at-law, Carleton Place. The chairman will receive a salary of $6,000 a year, the commissioners $4,000 a year each, and the Secretary $2,000 a year; they hold office during the pleasure of the Government, and must give their whole time to the work. They cannot directly or indirectly hold railway stock, or have any interest in any device, article, etc., used by railways, or any stock in utilities subject to the act. They must not act as officers or directors of any public utility, or of any company that has power to invest any portion of its funds in the securities of railway companies or public utility companies. The members of the Board were sworn in on June 12 at the Parliament Buildings, Toronto, where the offices will be located for the present; and held a meeting for organization purposes June 14. Speaking about the position of the Board in relation to the Railway Commission, appointed under the Dominion Railway Act, 1903, the Chairman said there would be no clashing between the two. The demarcation of the duties of the two trihunals was sufficiently well indicated to prevent the overlapping of business.

Jas. Leitch, K.C., was born at South Branch, Cornwall County, Ont., June 2, 1850; was called to the bar 1876, and created a K.C. 1889. He has always practiced at Cornwall, Ont., and has been largely interested in municipal government and in the establishment of public utilities. He married in 1876 Miss E. Strickland, daughter of E. Strickland, of Buckingham, Que., and one of his sons, J. S. Leitch, is a resident engineer on the G.T. Pacific Ry., Fort William, Ont.

A. B. Ingram, who was presented with a gold watch by the Conservative members of the House of Commons, June 7, on resigning his seat as representing East Elgin, to accept an appointment as a member of the Board, was born in Wentworth County, Ont., April 23, 1851, and for a number of years was connected with the railway service, acting successively as brakesman, baggageman and conductor, and working at different times on the C.P.R., G.T.R., Michigan Central Rd., Wisconsin Central Rd., and West Shore Rd. He has been appointed Vice-Chairman of the Board.

H. N. Kittson was born at Sorel, Que., Mar. 6, 1849, and was educated there and at Bishop's College, Lennoxville, Que. He came to Hamilton in 1885, and has been in the wholesale grocery business since 1889. He served as President of the Hamilton Board of Trade, 1891-92 and 1903-04.

The Intercolonial Ry. has placed orders for $75,000 of machinery for its new shops.

The Intercolonial Ry. has adopted the system of baggage checking from points on its line to the residences or hotels of passengers going to Montreal, Toronto, Ottawa and Hamilton, recently introduced on the C.P.R. and G.T.R.

G.T.R. Betterments, Construction, Etc.

New Buildings at Montreal.—A letter was read at the meeting of the Montreal City Council's finance committee recently, asking for a fixed assessment upon a building proposed to be erected on McGill St., for the Canadian Express Co., at a cost of $75,000 It was stated that the G.T.R. was prepared to expend $250,000 upon buildings on the street if the assessment were fixed at $100,000, provided proper arrangements could be made with the city. The matter was laid over to obtain a report from the city assessors upon the proposals. According to plans appearing in the papers the new building will be 10 stories high, and will cover an area of about 10,000 sq. ft. The building will be constructed of granite with stone or glazed terra cotta for the upper storeys.

According to unconfirmed reports in the Montreal papers, if present intentions are carried out, the entire block, bounded by the St. James Hotel, the vacant property facing the Bonaventure square, the London House, the Hotel Lalonde, and the vacant property between the latter and the St. James Hotel, together with the square now facing the front of the Bonaventure Station, will be utilized for one building.

Ottawa Station and Subway.—The Railway Commissioners have had under consideration the application of the G.T.R. to expropriate various properties around the Central Station for terminal purposes in connection with the new station.

The contract for the excavation and concrete work on the subway at Bank St. has been let to T. S. Kirby & Co., at $30,000.

London Improvements.—The reports that all negotiations are off between the G.T.R. and the London City Council respecting the raising of the tracks and the carrying out of other improvements at London, Ont., while correct to a great extent, were not positively so. It was stated June 20 that there was a desire apparent on both sides to get together and to come to an arrangement. The general plans have been approved by the council, and the only point of difference is that the G.T.R. made it a condition that $300,000 should be paid by the city towards the cost of carrying out the track elevation. A majority of the city council expressed themselves against making any such payment, and the G.T.R. officials said no subsidy no improvements. (May, pg. 271).

The Canadian Northern Ry. has filed with the Railway Commissioners, supplement no. 15 to its local passenger tariff, for its Prince Albert branch, between Melfort and Prince Albert, Sask., on a basis of 3½ cents a mile.

The Wisconsin Central Ry. is reported to have arranged for an entrance into Winnipeg; at any rate it has appointed a passenger agent in that city. An unconfirmed local report states that the Wisconsin Central has been or will be acquired by the G.T.R., and that the necessary connections will be constructed at once, so as to connect the existing lines with the G.T. Pacific Ry. or its branch lines at the International boundary between Manitoba and North Dakota.

There are 1,360 miles of car ferries in North America, operated by 35 companies. Nine years ago there were 197 vessels in service, with an aggregate capacity of 2,069 cars. There are now 562 boats, carrying 5,615 cars. The size of the vessels has been much increased, though the average capacity in freight cars remains about 10, freight cars now being about 20% longer than previously. The average speed of the floats towed by steamers is seven miles an hour; steamers carrying cars average about 10 miles an hour. The average number of cars carried daily by all lines is 11,476.

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TORONTO, CANADA, JULY, 1906.

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Galena Signal Oil Co., Franklin, Pa	374
J. J. Gartshore, Toronto	430
Gartshore-Thompson Pipe & F'dry Co., Hamilton	430
General Railway Signal Co., Buffalo, N.Y.	422
Goold, Shapley & Muir Co., Brantford, Ont.	414
Government of Manitoba	430
Grand Trunk Railway	390
The B. Greening Wire Co., Hamilton, Ont.	432
Hall Engineering Works, Montreal	420
Hamilton Bridge Works, Hamilton	400
N. J. Holden Co., Montreal	394
D. F. Holman Ry. Tracklayer Co., Chicago	434
Hudson's Bay Company	388
Robert W. Hunt & Co., Montreal	428
Hunter, Rose Co., Toronto	414
James Hutton & Co., Montreal	428
Illinois Central Railroad	408
Imperial Bank of Canada	432
Intercolonial Railway	404
International Mercantile Marine Co.	408
Wm. Jessop & Sons (Ltd.), Sheffield, Eng	422
B. M. Jones, Inc., Boston and New York	432
Jones Positive Nut Lock Co., Chicago, Ill.	428
The W. H. Kelson Co., Montreal	434
Wm. Kennedy & Sons (Ltd.), Owen Sound, Ont.	422
Kerr Engine Co., Walkerville, Ont.	414
John Leckie, Limited, Toronto	428
Lehigh Valley Railroad	426
A. C. Leslie & Co., Montreal	412
Locomotive and Machine Co. of Montreal	378
Mail Job Printing Co., Toronto	432
McCaskill, Dougall & Co., Montreal	Cover 1
John McDougall & Co., Montreal	430
McGregor, Banwell Fence Co., Walkerville, Ont.	418
M. McKenzie & Co., Montreal	434
G. B. Meadows' Wire, etc., Co., Toronto	414
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John S. Metcalf Co., Chicago, Ill	426
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Midland Towing and Wrecking Co., Midland Ont.	418
The Robert Mitchell Co., Montreal	426
Montreal Rolling Mills Co., Montreal	410
Montreal Steel Works, Montreal	404
T. A. Morrison & Co., Montreal	420
John Morrow, Machine Screw Co., Ingersoll	434
W. H. C. Mussen & Co., Montreal	Cover 1
New York Central Railroad	412
Niagara Navigation Co	412
Northern Electric and Manufacturing Co., Montreal	426
Northern Navigation Co	423
A. O. Norton, Coaticook, Que	386
J. J. O'Connor, Port Arthur, Ont	434
Ontario Wind Engine and Pump Co., Toronto	428
Orford Copper Co., New York	402
A. B. Ormsby (Ltd.), Toronto	398
Owen Sound Dry Dock & Shipbuilding Co	434
Owen Sound Wire Fence Co., Ont.	426
Page Wire Fence Co., Walkerville	420
Pere Marquette Rd	432
H. W. Petrie, Toronto	Cover 1 and pg. 392
Eugene F. Phillips Electrical Works, Montreal	432
The Hiram L. Piper Co., Montreal	434
N. L. Piper Railway Supply Co., Toronto	408
Polson Iron Works, Toronto	416
Positive Lock Washer Co., Newark, N.J.	428
G. R. Prowse, Montreal	410
J. W. Pyke & Co., Montreal	388
Rhodes, Curry & Co., Amherst, N. S.	406
Robb Engineering Co., Amherst N.S.	384
Rolph & Clark, Toronto	424
St. Lawrence Floating & Wrecking Co., Montreal	432
St. Thomas Brass Co., St. Thomas, Ont.	390
Safety Car Heating & Lighting Co., New York	384
Sheriffs Mfg. Co., Milwaukee, Wis	424
Simplex Railway Appliance Co., Montreal	Cover 4
The Jas. Smart Manufacturing Co., Brockville, Ont.	396
Standard Inspection Bureau, Toronto	432
Standard Steel Works, Philadelphia, Pa.	424
Steel Concrete Co., Limited, Montreal	404
Toronto Bolt and Forging Co., Toronto	410
Toronto Pressed Steel Co., Toronto	408
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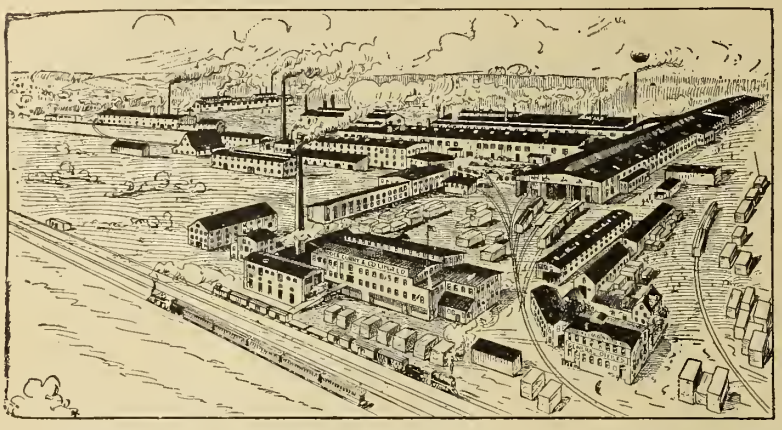

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403 CORDOVA STREET, - VANCOUVER, B.C.

TRANSPORTATION APPOINTMENTS.

Canadian Pacific Ry.—M. G. Murphy, heretofore Travelling Passenger Agent, St. John, N.B., has been appointed chief clerk to the Acting District Passenger Agent there.

E. Fremlyn, heretofore travelling auditor, has been appointed city ticket agent, Chatham, Ont., succeeding W. H. Harper, deceased.

P. F. Weisbrod, heretofore yard agent at East London, Ont., has been appointed station master at Winnipeg, Man.

J. Z. Choate, heretofore Bridge and Building Master, Nelson, B.C., has been appointed to a similar position at Vancouver, B.C., succeeding T. Stewart, resigned.

O. H. Baker, heretofore Travelling Freight Agent in the Kootenay District, B.C., is reported to have been appointed Contracting Freight Agent at Seattle, Wash., succeeding C. H. Buschman, resigned.

Canadian Northern Ry.—The following changes have been made in the dispatching staff: J. Rochon, heretofore Chief Train Dispatcher, district 3, Battleford, Sask., has been appointed train dispatcher, district 1, Port Arthur, Ont. A third dispatcher has been appointed at Port Arthur, viz., W. J. Brown. E. S. Hunt, heretofore train dispatcher Port Arthur, has been appointed Chief Train Dispatcher, district 3, Battleford, Sask., succeeding J. Rochon, transferred. T. Davis has been appointed train dispatcher district 3, succeeding T. M. Ryan.

Central Vermont Ry.—W. E. Mullins, Superintendent of Transportation, St. Albans, Vt., has resigned on his appointment as General Manager Costa Rica Rd., and Northern Rd., at San Jose, Costa Rica.

T. M. King, agent C.V. Ry., St. Albans, Vt., has also resigned and will accompany Mr. Mullins to San Jose as Secretary.

R. M. Hyde has been appointed Travelling Passenger Agent, with headquarters at St. Albans, Vt., succeeding W. R. Eastman, assigned to other duties.

W. Y. Martin, heretofore in the office of the Superintendent of Transportation, has been appointed Car Distributer at St. Albans, Vt.

Grand Trunk Ry.—The office of Trainmaster districts 1 and 2 has been abolished, on J. J. Connelly being appointed Trainmaster at Montreal. All reports made to the Trainmaster, districts 1 and 2, will hereafter be sent direct to the Assistant Superintendent at Island Pond, Vt.

A. A. Tisdale, heretofore chief clerk to the Fourth Vice-President, has been appointed Assistant to the Fourth Vice-President.

G. R. McLeod, heretofore secretary to the Fourth Vice-President, has been appointed chief clerk to the Fourth Vice-President, succeeding A. A. Tisdale.

J. J. Connelly, heretofore Trainmaster districts 1 and 2, Eastern Division, has been appointed Trainmaster districts 4 and 5, Eastern Division, at Montreal, succeeding L. G. Coleman, appointed Assistant Superintendent Ottawa Division.

L. G. Coleman, heretofore Trainmaster Montreal, has been appointed Assistant Superintendent Ottawa Division. He will have charge of transportation with jurisdiction over all employes in station, train and yard service. Office, Ottawa.

R. P. Isbister, heretofore accountant in the local freight office, Hamilton, Ont., has been appointed soliciting freight agent there, succeeding P. Collins, resigned.

The following agents have been appointed: Richmond, Que., W. A. Bunting; Gore, Que., R. Fortin; Lisgar, Que., G. D. Daniels; Beloeil, Que., J. A. Asselin; Scotia Jct., Ont., S. N. Milligan; Emsdale, Ont., S. Blatherwick; Colwell, Ont., C. Gordon; Beamsville, Ont., H. W. Sussex; Eastwood, Ont., J. W. Young; Bridgeburg, Ont., W. White; Fort Erie, Ont., W. White; Black Rock, N.Y., W. White; Harrisburg, Ont., W. A. Murray; Harley, Ont., W. A. McMonagle; Allanford, Ont., H. A. Chalmers; Blyth, Ont., G. E. McTaggart; Johnsons, Que., T. Fullum. Outside ticket agent, Preston, Ont., C. E. Yates.

Dr. B. P. Brodie, Division Surgeon, Western Division, has been appointed Assistant Chief Surgeon Western Division, with headquarters at Detroit, Mich., succeeding Dr. F. F. Pitcher, who has withdrawn from the service on account of ill-health.

E. F. Flinn has been appointed Commercial Agent at Cincinnati, Ohio, succeeding A. Gazley, resigned.

Great Northern Ry. (U.S.).—F. I. Whitney, Passenger Traffic Manager, has resigned to take effect July 1. It is reported that A. L. Craig, General Passenger Agent Oregon Rd. and Navigation Co., will be his successor.

Michigan Central Rd., Lake Shore and Michigan Southern Rd.—H. C. Snelling, heretofore transfer agent for stocks and bonds, has been appointed Assistant Treasurer Michigan Central Rd., and Lake Shore and Michigan Southern Rd., at New York, succeeding F. Middlebrook, resigned.

Minneapolis, St. Paul and Sault Ste. Marie Ry.—A. A. Bell has been appointed Auditor of Traffic Receipts.

Montreal and Lake Superior Line.—Hugh Young, heretofore Travelling Freight Agent Northern Navigation Co., has been appointed Traffic Manager of the M. and L.S. Line, succeeding A. Cowan, deceased. Office, Hamilton, Ont.

New York Central Lines.—W. C. Brown, heretofore Vice-President in charge of operation, Chicago, Ill., has been elected Senior Vice-President. He will perform such duties in the general management of the property and the business of the company as may be assigned him by the Board of Directors, the Executive Committee and the President. He has also been elected a director, succeeding A. Pond. Office, New York.

A. H. Smith, heretofore General Manager N.Y.C. and H. R. Rd., has been appointed Vice-President in charge of N.Y.C. lines east of Buffalo, with the exception of the Boston and Albany Rd., in charge of maintenance and operation. Office, New York.

C. E. Schaff, heretofore General Manager, Cleveland, Cincinnati, Chicago and St. Louis Rd., has been appointed Vice-President N.Y.C. lines west of Buffalo, in charge of maintenance and operation. Office, Chicago, Ill.

Percy Collins, formerly soliciting freight agent in Hamilton for the G.T.R., has been appointed contracting freight agent for Western Ontario for the New York Central and West Shore Railroads. Headquarters, Toronto.

Pere Marquette Rd.—J. W. Kearns, heretofore assistant ticket agent at the Detroit Union station, has been appointed Travelling Passenger Agent, P.M. Rd., succeeding E. Britton, resigned. Office, London, Ont.

Rutland Rd.—F. E. Barbour, General Agent Passenger Department New York Central Rd., has also been appointed General Agent of the Passenger Department, Rutland, Rd., with offices at 130 St. James St., Montreal. The Rutland ticket office has been removed from 141 St. James St. to the New York Central ticket office, 130 St. James St. H. J. Hebert is now city ticket agent for both the New York Central and Rutland Railroads, T. M. Fallon remaining as city passenger agent for the Rutland, with headquarters at 130 St. James St.

Toronto Union Station.—A. S. Mitchell, heretofore assistant station master Toronto Union Station, has been appointed station master, succeeding J. C. Darnborough, retired.

Winnipeg, Winnipegosis and Cumberland Steamship Co.—J. W. Simpson has been appointed Superintendent Winnipeg Division, succeeding R. Smith.

S. P. Elliott has been appointed general agent, Detroit, Mich., succeeding A. M. Hungerford.

Wisconsin Central Rd.—H. W. Steinhoff, heretofore Travelling Passenger Agent, with headquarters at Saginaw, Mich., has been appointed Assistant General Passenger Agent, with headquarters at Milwaukee, Wisconsin.

E. Britton, heretofore Travelling Passenger Agent Pere Marquette Rd., London, Ont., has been appointed Travelling Passenger Agent W.C. Rd., for the Michigan territory, succeeding H. W. Steinhoff, promoted. Headquarters, Detroit, Mich.

G. H. Anthony, heretofore General Agent at Duluth, Minn., has been appointed General Agent at Winnipeg, Man.

Mackenzie, Mann & Co.'s Eastern Lines.

The first general consolidation of the different railways in which Mackenzie, Mann & Co. were interested as promoters, or contractors, took place when the Canadian Northern Ry. Co. was formed. Under this title there is now operated a line extending from Port Arthur, Ont., to Edmonton, Alta., 1,265.7 miles; with a line from Gilbert Plains Jct. to Prince Albert, Sask., 458.5 miles, and numerous branches, having a total mileage of 2,488.5. There is a considerable mileage in Manitoba, Saskatchewan and Alberta under construction. The second consolidation has just taken place, a number of the eastern lines—in operation and under construction—having been amalgamated under the title of the Canadian Northern (Quebec) Ry. The James Bay Ry., which is under construction from Toronto to or near Sudbury, Ont., and has plans on file with the Department of Railways for extensions to connect with the Canadian Northern Ry. near Port Arthur to the west, and at Hawkesbury, with the Great Northern Ry., in the east, will, it is understood, adopt the title of Canadian Northern (Ontario) Ry. Under the powers of an act, passed at the last session of the Dominion Parliament, it may do this with the consent and approval of the Governor-in-Council.

CANADIAN NORTHERN (QUEBEC) RY.

This is an amalgamation of the Great Northern Ry. of Canada, which had previously absorbed the Montford and Gatineau Ry., the Chateauguay and Northern Ry., and the Quebec, New Brunswick and Nova Scotia Ry. The Great Northern Ry. extends from Riviere à Pierre, Que., to Hawkesbury, Ont., with branches to St. Jerome and Shawinigan Falls, 175.10 miles, and the old M. and G. Ry. from St. Sauveur, on the C.P.R.'s Montreal and Western line, to Arundel, 33 miles, a total of 208.10 miles. A contract has been let to O'Brien and Mullarkey, Montreal, for the construction of 20 miles of line necessary to connect the G.N. main line at St. Jerome, with its detached Montford division at Morin's Flats. W. P. Chapman, St Jerome, is Chief Engineer in charge of construction. It is expected to have this connection completed by the end of the year. The Chateauguay and Northern Ry. extends from Montreal to L'Epiphanie, Que., 36.20 miles, and has heretofore been operated under lease by the G.N.R. The terminals of the line are on Moreau St., Montreal, and negotiations are in progress with a view of acquiring land for extending the buildings and yards. The G.N.R. trains on reaching Riviere à Pierre were taken over the Quebec and Lake St. John Ry. into Quebec, where the company had terminal facilities.

A contract has been let for a line from Burrill's Siding, near Garneau Junction, to Quebec, about 80 miles, and the contractors, O'Brien and Mullarkey, expect to have the located route covered with men at an early date. It is hoped to have construction com-

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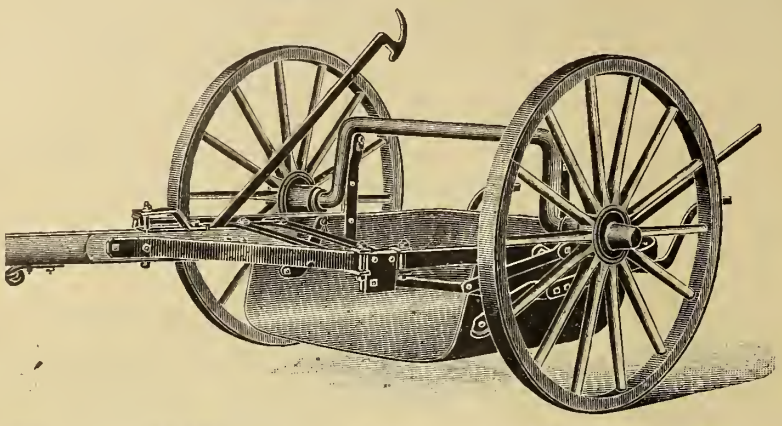

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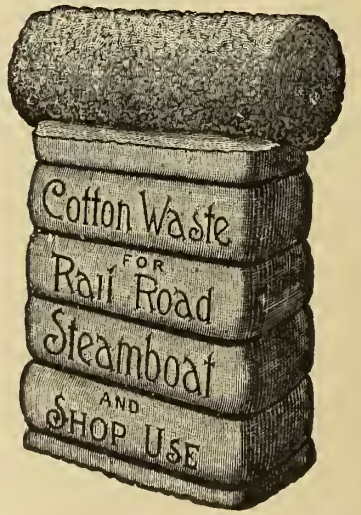

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pleted by the end of the year. The Dominion Parliament in 1903 voted a subsidy upon the usual conditions to the Great Northern Ry. for the construction of this line, and a revised vote was made in 1904. The location plans for this cut-off have been approved by the Railway Commissioners upon application of the Quebec, New Brunswick and Nova Scotia Ry. An act was obtained from the Dominion Parliament in 1903 incorporating a company with this title to construct a railway from some point on the Great Northern Ry. near Quebec, to the north end of the Quebec Bridge, and from the south end of the bridge to Moncton, N.B., and thence to Pugwash, N.S., with a branch line to St. John, N.B. Under this charter construction has been carried on for some time on a line to connect the northern end of the Quebec Bridge with Quebec city, and this work is expected to be completed in the fall. O'Brien and Mullarkey are the contractors, and W. P. Chapman, St. Jerome, is Chief Engineer in charge of the work. (Mar., pg. 131.)

JAMES BAY RY.

We were advised June 19, that tracklaying has been completed from Toronto to a point about three miles north of Beaverton, Ont., and from a point five miles south of Washago to Parry Sound, Ont., leaving a distance of about 16 miles yet to be laid. This will occupy, it is expected, about three weeks, as there is a small amount of grading and bridge work to be done. The ballasting between Toronto and Beaverton is being rushed as fast as possible, 22 miles having been completed when we were advised. Between Washago and Parry Sound the ballasting has been practically completed. It is expected to have the line between Toronto and Parry Sound open for traffic some time in August The trains will enter Toronto Union Station by an arrangement with the G.T.R. and C.P.R. A considerable area of land has been purchased in the east end of Toronto for freight yards and terminals, and plans for the laying out of these are being prepared.

North of Parry Sound the work of grading is being pushed as rapidly as possible all the way to Sudbury. The contractors have the route well covered with men, and the work is progressing satisfactorily. Construction has been started at a point about five miles north of Wahnapitae, on a branch to the Hutton mines, about 25 miles.

Under the powers of the Dominion Act of 1905, the company has power to construct a railway from near Toronto easterly to Ottawa; from the mouth of the French River, passing through or near Ottawa, and Hawkesbury to Montreal; and from Sudbury westerly to Kashabowie, on the Canadian Northern Ry., passing through Port Arthur, or having a branch into that town. Plans for all three of these lines, and also for a line from Sudbury to Batchawaung Bay on Lake Superior, power to construct which was given in an act passed in 1902, have been filed with the Railway Commissioners. The line from Toronto to Ottawa has been surveyed between the C.P.R. and the G.T.R. lines for the greater part of the distance. The entrance into Ottawa is planned south of the civic isolation hospital, and on to Nicholas St., near the G.T.R. coal bins. East of Ottawa location plans for the J. B. Ry. have been approved by the Railway Commissioners from Hawkesbury West, the eastern terminus of the Great Northern Ry., to the boundary between Russell and Prescott counties, 28.07 miles.

The line from Sudbury westerly is projected to parallel the C.P.R. at a distance of about 20 miles northerly, and to join the Canadian Northern Ry. at Kashabowie, 82.3 miles west of Port Arthur. The distance between Sudbury and Kashabowie is 560 miles, according to the projected line. (June, pg. 327.)

Toronto Union Station.—The contract for clearing the site of the new Union Station has been let to Kelly and Adams, Toronto. Work was commenced June 20, and good progress is being made. The wreckage of the warehouses, etc., burned out April 19, 1904, which now cover the ground, will be utilized to fill up the G.T.R. water lot between John St. and Spadina Ave. The buildings which are at present occupied by the post office at the corner of Front and Lorne streets, and the adjoining one will have to come down, so that there is considerable work to be done before any actual building operations can be started. The plans for the new buildings, it is understood, have not been finally approved. The new buildings, terminals, etc., will cost about $2,000,000, and will be in the French style, of brick with stone dressings, having a front elevation of five stories facing Front St. (May, pg. 257).

J. D. McArthur Company, Limited, has been incorporated under the Manitoba Companies' Act, with a capital of $1,000,000 and offices at Winnipeg, for the purpose of carrying on the business of builders and contractors in any and every line of work and industry. The company is granted very extensive general powers, and may amalgamate with or take over concerns having similar powers. The provisional directors are: J. D. and D. F. McArthur, contractors; B. J. McLeod, book-keeper; W. P. McDougall, accountant; J. K. McLennan, physician, all of Winnipeg.

ELECTRIC RAILWAYS.

Canadian Street Railway Association.

The semi-annual meeting was held at Quebec, June 4 and 5, with the following in attendance: J. W. Crosby, Halifax Electric Tramway Co.; C. B. King, London St. Ry.; W. G. Ross, D. McDonald, P. Dubee, M. Neilson, D. E. Blair, Montreal St. Ry.; A. H. Royce, Niagara, St. Catharines and Toronto Ry.; E. G. Evans, H. M. Bartlett, Quebec Ry., Light and Power Co.; Col. H. H. McLean, R. B. Emerson, H. B. Robinson, H. H. Hopper, St. John, N.B., Ry.; J. Gunn, Toronto Ry.; J. McArthur, Toronto and York Radial Ry.; G. C. Royce, Toronto Suburban Ry. The President, W. G. Ross, occupied the chair, and in opening the meeting said that during the past year the general field of electric railways throughout the world had made great strides, and it was puzzling most of the guiding minds of all progressive corporations how to keep up with the great expansion and demand on their resources, to accommodate the growing necessities of the public, and the improved and advanced methods necessary to keep the systems up to what the public expect and what they ought to be. The steam railways are also alive to the advantages of electricity as a motive, and great development and activity is evinced among them, especially in the eastern part of the U.S. To what extent this will affect electric, street and interurban railways in the future is not quite clear, but if electric street railways were to hold their own they must adopt a progressive attitude, and not only expand their systems, but construct and maintain them in the very highest state of efficiency. To do this properly it was absolutely necessary that as they branched out from the congested parts of the cities they must purchase or obtain their own right-of-way, and drop as much as possible the policy of running on public highways, unless they are of sufficient width to practically reach the same results. Having obtained this right-of-way, it would be neccssary to double track the lines with heavy rails, stone ballast the track and run at high speed, otherwise they might disappear in the folds of the energetic and gigantic corporations, the steam railways.

Mr. Ross referred with satisfaction to the work the Association had accomplished, and urged an increase in the membership, so as, if possible, to get every street railway company in Canada on the roll. He referred feelingly to the death of Dr. S. Ritter Ickes, formerly of the Grand Valley Ry., and also mentioned the removal from Canada of C. E. A. Carr, formerly of the London St. Ry., and J. C. Rothery, of the International Traction Co.

Papers were read by M. Neilson, Consulting Engineer Montreal St. Ry., on Track Construction and Maintenance, and by G. C. Royce, Manager Toronto Suburban Ry., on Gasoline Cars. The first is given in this issue, and the latter will be published in our August issue. These papers were fully discussed, and a number of other matters, including legislation affecting street railway interests, the use of storage batteries, rules defining duties of officers, disposal of mutilated coin, and the best type of wheel.

Officers for the current year were elected as follows: President, W. H. Moore, Assistant to President Toronto Ry.; Vice-President, E. G. Evans, General Manager Quebec Ry., Light and Power Co.; Sec.-Treas., A. H. Royce, Solicitor Niagara, St. Catharines and Toronto Ry.; Counsel, H. H. McLean, K.C., St. John, N.B., Ry.; Executive Committee: J. E. Hutchison, Superintendent Ottawa Electric Ry.; C. B. King, Manager London St. Ry.; D. McDonald, Manager Montreal St. Ry.

The representatives attending the meeting were most hospitably entertained by E. G. Evans, on behalf of the Quebec Ry., Light and Power Co., being taken to Montmorency Falls, where they inspected the power installation now being made by the company, and to Ste. Anne de Beaupre. They were also entertained at luncheon and at dinner at the Kent House, Montmorency Falls, by the Company.

Track Construction and Maintenance.

By M. Neilson, Consulting Engineer Montreal Street Ry.

Our aim should be to reach perfection in track construction, but it is a well-known fact that while we have not yet reached that desired stage, great improvements have been made of late years. I think that there is a tendency for managers of railways to neglect their track on account of their anxiety to show big surpluses, and if we take up about half an hour at this meeting reviewing and discussing what is already known about track our time will be well employed.

It is my intention to deal with this most important subject in a general way without going into the details of any particular plan of track construction. We should strive to get street railway track construction down to standard. In order to do this we must first decide what form and weight of rail is best adapted for paved streets, macadam streets and suburban lines. These may be classed under two heads (provided the macadam streets in which the track is to be laid are not likely to be paved during the life of a good rail). Having fixed upon the best rail to use, our next point to consider will be the kind of joint plate that will give the most satisfactory results, and then a plan of construction which will withstand our severe climatic conditions. The old tram-plate track construction was considered good in its day, but it had to go when electricity for motive power was introduced; it was too light construction for the heavier cars that electricity made it practicable to adopt. The increased weight of cars called for a more substantial track construction, and the tram-

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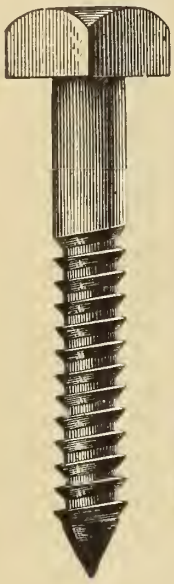

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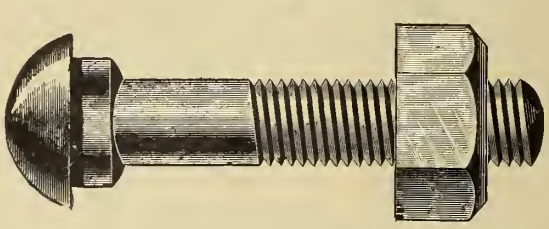

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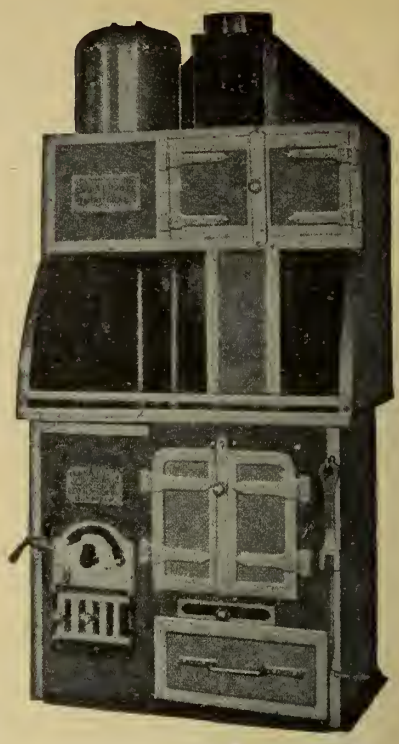

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plate was superseded by heavier forms of girder rail, also light T rail. There have been a lot of different kinds of lipped rails made, but the majority of them have proved unsatisfactory. When they were introduced many got the idea that nothing else would suit for city streets, paved or unpaved, the T rail being considered only fit for suburban lines. The heavy lipped rail used for guard on curves and at intersections is well adapted for the work it has to do; lipped rails generally have too little depth allowed for wearing, the flanges of the wheels soon come in contact with the lip, both on its side and bottom. The groove is a receptacle for dirt, stones, pieces of wood, iron, etc. The cars pounding over these obstructions and grinding against the lips tend to loosen up and hasten the wear on the rails and make too much noise. In particular sections and cases where the T rail will not be allowed, the heavy lipped or Trilby section should be used; the shape of the groove on it is very much better than some of the earlier designs. It tends to clear itself of dirt, but is a bad receptacle for pieces of iron.

Owing to our extremes of heat and cold the question about expansion and contraction of rails is somewhat aggravated in all forms of lipped rails, on account of the additional surface of metal exposed. When we are endeavoring to fix upon a standard rail, we must not forget to consider it from an economical point of view, and try to get one which, with the minimum weight of metal, will withstand the most severe traffic conditions best, will wear longer and cost least for maintenance of track and pavement. The latest section of grooved rail, weighing 96 lbs. per yard, is not an economical rail; there is too much superfluous metal in the lip, which adds to the first cost; it invites the traffic of heavily loaded waggons—in fact it tends to concentrate all travel on the rails or in their vicinity, thereby obstructing the progress of cars, wearing out the pavement adjacent to the rails, also adding to the danger of collisions, and making it more difficult to maintain good time with the cars. If we could devise some plan of track construction which would stand the most severe traffic conditions for, say, 50 years, it is self-evident that we would please the public, on account of doing away with the great annoyance caused by having the tracks torn up in front of their places of business as well as residences. While we can hardly expect such an ideal condition, we can, by adopting a good T rail reduce the frequency of renewal. It has been alleged that a satisfactory job could not be made with the T rail in paved streets; this is not correct, excellent track work can be made, leaving the streets in shape so that the rails can be easily crossed in any direction in perfect safety. Grooved rails are responsible for a lot of damage to the wheels of light rigs, and I have seen rubber tires stripped off by catching in the groove. It is possible that the blocks along the gauge line of T rails will require more attention; if so, we can afford to renew and maintain them in perfect order as the difference of the cost of the superfluous metal in a lipped rail and the greatly increased life of a good heavy T rail will more than compensate for any additional expense that may be incurred keeping the paving blocks in good shape. I believe that for straight tracks the T rail will soon be adopted as standard and the many forms of lipped rail will, like the old tram-plate, become obsolete.

Having decided upon T rail as standard, we must next fix on a particular rail for use in paved streets, and another for macadam streets and suburban lines, which with the heavy lipped guard rail will make only three different kinds of rail required to keep in stock. The T rail should have the approval of the public, as it gives them an easier riding track with less noise, and, therefore, more comfort. While discussing the question about the kind of rail to be used, I have heard the argument made that the T rail was objectionable on account of the difficulty teams had in driving over it or along the track; consequently the wooden blocks on the outside of the tracks, in this particular case, were worn away faster than those between the rails. This helps to prove my contention that T rails do tend to keep vehicular traffic more on the sides of the streets, thereby allowing cars to make quicker time with less danger of collisions or blockades, and thus ensuring a better service to the public. Where T rails are used in streets paved with granite blocks, several ways have been devised to form a groove for the flanges of the car wheels. If great care is not taken in cutting and laying the grooved blocks, the groove is apt to be like the blocks, rather rough. Granite paving costs roughly about twice as much as scoria blocks. Scoria blocks should wear well, as a much smoother surface can be made with them, thus lessening the shock and wear hastened by heavy waggons and carts pounding over a rough surface. Special scoria blocks can be moulded to any pattern required to form an excellent groove for the flanges of car wheels. The deafening noise made by coal carts and waggons pounding over granite blocks is very objectionable, therefore I think that scoria blocks will soon be more extensively used, and good results will be obtained if a solid foundation is made for the blocks as well as the rails.

For paved streets a T rail 60 ft. long and weighing about 90 lbs. per yard is good for the heaviest cars likely to be used on our streets. It should have sufficient depth to allow the laying of 6 in. paving blocks, the base should be broad and the head wide and deep in order to ensure long life under severe traffic conditions. For macadam streets I would adopt a T rail 60 ft. long of A.S.C.E. pattern, weighing 80 lbs. per yard, and for suburban lines the same section of rail in 30 ft. lengths.

A track is weakest at the joints, and the destruction at this point has in many cases been accelerated by careless construction work—either too much was allowed for expansion, the bolts were left slack, or the ties were insecurely bedded and not placed properly. Many different kinds of rail joints have been tried and a great improvement made. The shape of the T rail makes the joint problem somewhat easier solved. Where track is laid in paved or macadam streets without allowing for expansion, with heavy angle plates 28 in. long, 6 bolts at each joint, properly tightened, they should support the ends of the rails in such a manner that the joint can hardly be detected after cars have rolled over it for a time. What is known as the continuous joint plate with four or six bolts, is also good and seems well adapted for what we are all striving to obtain —something that will support and keep so perfectly in position the ends of the rails, that they will appear as a continuous band of steel, and cars will roll along so smoothly that it will be absolutely impossible to detect the joints.

Street railway track in paved and macadam streets should be laid without any allowance for expansion, all the rust and dirt removed from the rails and plates where they come in contact, and before putting on the plates the ends of the rails should be brought into line and to same elevation. Damage is often done by trying to force plates to bring the rails into proper position. After rails are brought to the correct grade and properly lined, the joints must be gone over by a reliable man who will hammer the plates and bolts well into place, and tighten up the nuts as much as it is possible to do with a wrench four feet long. It will be found that a lot of slack can be taken up after the rails are in proper position.

On steam roads the sectionmen can always have an eye on the bolts, but on electric roads, in paved and macadam streets we cannot see the bolts after the work is completed; consequently, we must endeavor to make everything as tight as possible when the track is laid. Steam railway track is often rushed along by putting in half the ties, half spiking, and often two bolts to a joint, the completion of the work being left for a gang following. It seems to me that this steam road practice was followed in some of the first electric car tracks laid, and it would appear as if the gang behind did not do their work properly.

In streets and every place where only the top of the rails are exposed, they should be laid so tight that there is no space left to start pounding; in such a case the joints may be made even or staggered, but on suburban lines where an allowance must be made for expansion and contraction, it is better to break the joints, as it lessens somewhat the blow on account of it alternating from side to side. If track laid with staggered joints is not kept in good order, cars passing over it at a fair rate of speed get into a disagreeable motion and list very perceptibly. In such cases where there is double track with very limited clearance for cars, the danger of their hitting is somewhat increased when they keep lurching from side to side, but no track should be allowed to get into bad shape. Low, loose joints, bad surface, poor line and defective gauge increase the destructive force exerted by the wheels, consequently the rails wear out much faster than they should.

The foundation of track is a matter of great importance; good rails are soon ruined if the foundation is defective. One of the worst conditions is where track has been laid on clay; it is absolutely impossible to keep track in order where the ties rest on clay, and the cost of attempting to keep the track in condition to run over far exceeds a fair rate of interest on the sum which would be required to be expended to make a good stone foundation. With T rail track properly laid on a solid bed, the trouble with loose joints should be greatly reduced. Heavy tie rods placed every 6 ft. will hold the rails true to gauge and keep them in better line, thereby lengthening their life and at the same time very materially reducing the cost of maintaining the rolling stock.

For concrete foundation in paved streets the Twin City Rapid Transit Company's standard construction is excellent, and for all new work of this description I think it will be difficult to improve on their plan of making a foundation, which may be briefly described as follows: The rails are laid on ties 12 ft. apart (these are merely for use in bringing the rails to correct surface); tie rods are put in every 5 or 6 ft. They cast-weld the joints (this, I think, should be omitted). When track is properly surfaced and aligned a trench is excavated under each rail of a uniform width of 2 ft., and of sufficient depth so that there will be 12 ins. of concrete under the rail, the height of the concrete being made to suit the kind of paving material. The balance of the space between these longitudinal concrete stringers is made 6 ins. thick to support the blocks. Care should be taken to prepare the foundation for the concrete so that the section will be as near as possible uniform the whole length of the track. Great care should also be taken with the earth foundation upon which the concrete is to rest. It should be well rammed or rolled to an even hardness. These little details are too often looked upon with indifference as being matters of no importance, but I wish to say most emphatically that right here is where we want a foreman who will give strict attention to these seemingly unimportant details.

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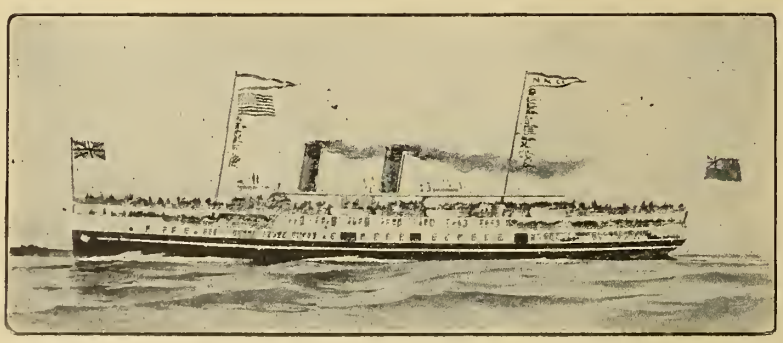

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were concreted when track was first laid, some stretches will probably be good solid concrete and some stretches will be of no use. All the old concrete in the bad stretches should be removed and new work of the Twin City standard plan put in. Where the concrete is good quality, probably broken into large slabs which rest upon a well-settled earth bed, it seems to me unwise to disturb the old concrete. In cases like this in Montreal, we laid the rails on top of this work, held together with tie rods only. The rods are placed every 6 ft. The rails were shimmed to correct grade, everything loose on top of the old concrete was removed, the whole surface was kept well moistened ahead of the new layer of concrete, which varied in thickness according to the settlement that had taken place under the original mass. In cases where no settlement had taken place and there was not sufficient depth to allow the new concrete being tamped under the rail, pure cement mortar was run under. Work like this, properly done, should stand up well, and it is self-evident that it is the cheapest way of preparing the foundation for the new rails. In every case where entirely new concrete work is put in, no cars should be allowed on the rails for at least 10 days after the last batch of concrete is laid; good work is sometimes ruined by allowing traffic on it too soon.

The road department of a street railway I consider one of the most important. It has to take care of the foundation upon which all the business must be done, the laying of the track, its maintenance, as well as that of the roadway adjacent to the rails; it calls for men of close and accurate observation who will give strict attention to a lot of simple and seemingly unimportant details. Track men should be trained to do thoroughly conscientious work. Enough men should be kept constantly on each section so that they will actually be waiting and watching for some defect to show itself. It is always a bad state of affairs when repairs push you; the road department, like every other, requires to get down to a perfect method of doing its work; it should keep a systematic check upon its men, material and tools, necessarily scattered over quite a large territory. Improvements have been made in the designing, manufacture and quality of the material in the special work where the tracks cross and connect with each other at the street intersections. Notwithstanding the fact that progress has been made, track builders and manufacturers of special work should continue to study and try to improve on what we to-day consider good. Experience is an excellent teacher and should enable the person whose duty it is to watch the track and special work, to give the designer and manufacturer pointers re any defects and probable improvement that might be made in new work when it is required. Our motto should be, "Strive to make our track and special work better." Insist upon having the best, as the best is always consistent with the greatest ultimate economy.

Mr. Neilson has sent us the following additional information: "In Montreal I find that a lot of the original concrete placed under the tracks in paved streets was laid on a foundation which was far from uniform in hardness. Settlement took place very unevenly. The layer of concrete was not strong enough to bridge over the soft places when the material settled, consequently it broke and adjusted itself to the settlement of the material underneath. My contention is that where these large slabs are found to be good, hard concrete, which heavy vehicular traffic has pounded down to a solid bed, that it is a good plan not to disturb the old concrete, but rather to use it as the foundation for the new layer, which will vary in thickness according to the amount of settlement which has taken place in the old bed."

Projects, Construction and Betterments.

British Columbia Electric Ry.—A number of short extensions of lines in Victoria, Vancouver and New Westminster have been authorized. These, together with other improvements to be made, will involve the expenditure of about $500,000. J. C. Buntzen, Managing Director, London, Eng., inspected the lines during his annual visit to the Pacific coast during May and June, and made arrangements for the carrying on of the works of extension. (Nov., 1905, pg. 541).

Buffalo, Lockport and Rochester Ry.—The contract for the construction of this line, 54 miles in length, has been let to the J. G. White Co., of New York, with which the Canadian White Co. is affiliated. The line will parallel the New York Central Rd. very closely, crossing it only at one point. It is proposed to run express trains between Buffalo and Rochester, N.Y., in 105 minutes, and locals in 210 minutes. The power will be supplied by the Ontario Power Co., and the incorporators include F. Nicholls, E. R. Wood and Sir H. M. Pellatt, Toronto. The same interests are also promoting the construction of a bridge across the Niagara River with a view to connecting up the various lines in New York State and Ontario in which they are concerned. See also Toronto and Hamilton Ry., this page, and Trans-Niagara Bridge Co., May, pg. 277.

Central Ry. Co. of Canada.—The Board of Railway Commissioners has sanctioned the location plans of the company's projected railway from River des Prairies to St. Hermas, Que., 26 miles. (May, pg. 275).

Hamilton, Ancaster and Brantford Ry.—Telegrams were received in Hamilton and Brantford, Ont., June 7, from A. Kennedy, the U.S. senator who is financing the company, that a contract had been signed in New York, with G. Townsend of Chicago, Ill., for the construction of the road, and that work would be commenced right away. (Oct., 1905, pg. 487).

Hamilton, Waterloo and Guelph Ry.—The act providing for the incorporation of a company with this title to construct a railway from Hamilton to Elmira, Ont., via Galt, Preston, Berlin and Waterloo, and a railway from Hamilton to Fergus, via Guelph and Elora, has been passed by the Dominion Senate. The company is negotiating with the Hamilton City Council for a right of way through Dundurn and Harvey parks, and the City Engineer has been instructed to see how such a route could be laid out with the least damage. (May, pg. 275).

Huron and Ontario Ry.—G. T. Kilgour, Toronto, met representatives of the Owen Sound Board of Trade, June 1, and discussed the possibility of the construction of an electric railway between Owen Sound and Meaford, as a part of the extensive system of electric railways which the H. and O. Ry. is authorized to construct. R. S. D. Hartrick, Chief Engineer; H. W. Middlemist, and a survey staff started work on a survey of the 27 miles between Owen Sound and Meaford, June 6. (Dec., 1905, pg. 593).

London, Aylmer and North Shore Electric Ry.—Local reports state that the charter for this railway has been acquired by J. H. Teall, who was interested in the construction of the Tillsonburg, Lake Erie and Pacific Ry.

Longueuil Tramways Co.—The Quebec Legislature in 1905 passed an act incorporating a company with this title, for the purpose of constructing an electric railway in Longueuil, and from any point therein to Montreal or Maisonneuve by way of Victoria Bridge, with the consent of the G.T.R. The municipal council of Longueuil granted a franchise to the company, and an action was subsequently entered in the Quebec courts by M. Perrault, M.P. for Chambly, and one of the incorporators of the Montreal and Southern Counties Ry., for the purpose of having the by-law set aside. The case was argued before Justice Tellier in Montreal, June 6, and judgment reserved. (Nov., 1905, pg. 541). See also Montreal and Southern Counties Ry.

Montreal and Southern Counties Ry.—A contract has been entered into, we are officially advised, between the G.T.R. and M. and S. C. Ry., for the operation by the latter of its electric cars over the Victoria Bridge, across the St. Lawrence at Montreal, owned by the G.T.R. The route of the line, upon which it is proposed to start construction at once, is from McGill St., Montreal, along Common St. and across the Victoria Bridge, thence to Montreal South, Longueuil and Chambly Canton, a distance of about 17 miles. This is only the first section of the work, as the company has power to construct a line to Sherbrooke, Que., and to connect with the lines of the various railway companies crossed. J. A. Burnett, heretofore construction engineer of the Montreal Light, Heat and Power Co., has been appointed Superintendent and Electrical Engineer of the M. and S.C. Ry. (May, pg. 275). See also Longueuil Street Ry.

South-Western Traction Co.—A trial trip was made over the line between London and St. Thomas, Ont., June 1, and a regular service was inaugurated between London and Talbotville June 4, the opening for public traffic into St. Thomas being expected to take place by the end of the month. Work is being progressed with on the line from St. Thomas to Port Stanley, but it is not expected to have it completed this summer as was hoped.

The erection of a station on Horton St., London, is being gone on with. The building will be 80 ft. long by 40 ft. wide, two storys high, and flanked by a tower. It will be built of red brick with yellow stone facings. On the ground floor there will be provided working room, ticket office, lavatories, etc.; and the upper floor will be given over entirely to the officials of the company, accountants, etc. (May, pg. 277).

Superior Portland Cement Ry.—A company has been incorporated under the Ontario Companies' Act for the purpose of constructing an electric railway from Orangeville to the factory of the Superior Portland Cement Co., thence south-westerly to Caledon Lake in Peel county, 1½ miles from Orangeville. The provisional directors are: G. McIntyre, D. B. Brown, G. E. Brown, Orangeville; W. H. Jackson, W. DeL. Wilson, Toronto.

Toronto and Hamilton Ry.—The act for which the company is making application at the current session of the Dominion Parliament, provides for a change of name to the Toronto, Niagara and Western Ry. The original charter was passed in 1902, and gave the company power to build from Toronto across Hamilton Beach to Niagara. It is proposed to extend the line through Brantford, Woodstock and London, to Windsor. The Toronto Niagara Power Co. has a right of way, 80 ft. wide, from Toronto to Niagara, and an agreement has been reached to build the railway, which would be operated by electricity, along this right of way. The Toronto-Niagara Power Co., in securing its right of way, had in the majority of cases secured the right to use it either for a power or railway line or both. A clause inserted in the bill by the Railway Committee of the House of Commons, brings both the power and railway companies under the scope of the Railway Act. (Feb., pg. 89).

Toronto and York Radial Ry.—A power house is being constructed at Keswick, Ont., to supply power for the extension of the Metropolitan Division from Newmarket to Jackson's Point. The building is 100 by 150 ft.

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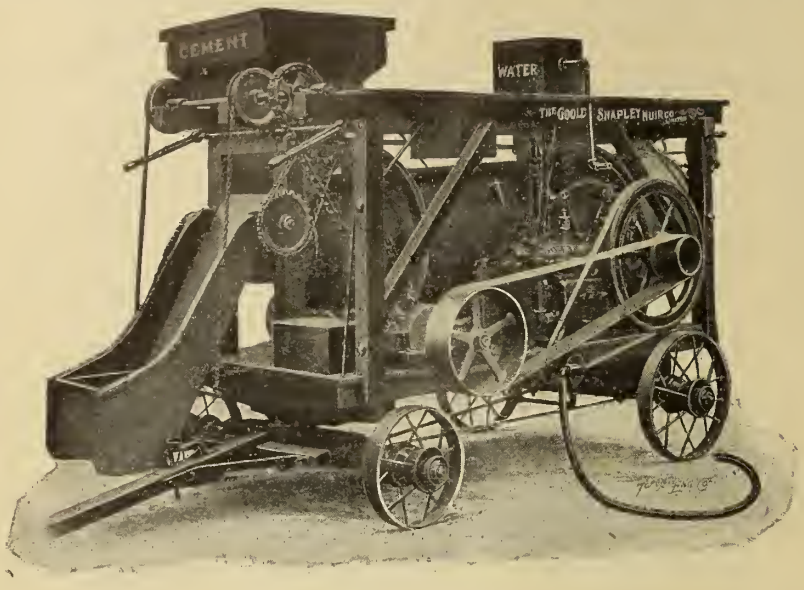

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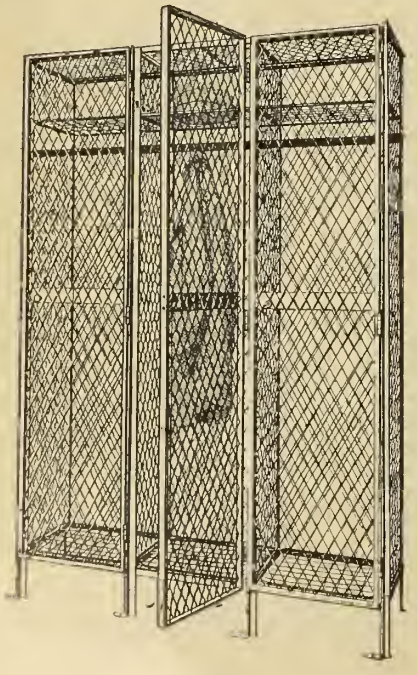

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Summer Schedules in effect June 24th, 1906.

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Windsor, Essex and Lake Shore Rapid Ry.—A settlement was reached with the City Council for the entrance of the company's line into Windsor, Ont., June 4, and construction work on this portion of the line is being pushed. The company is equipping the line with the single phase alternating current system, and the plant is being supplied by the Canadian Westinghouse Co. (June, pg. 345).

Winnipeg, Selkirk and Lake Winnipeg Ry.—The electrical equipment on about 12 miles of the line between Winnipeg and Selkirk, Man., had been completed early in June, and the work on the remaining 10 miles was expected to be completed by the end of July. so as to permit the operation of the entire line by electric power, Aug. 1. (June, pg. 345).

Electric Ry. Finance, Meetings, Etc.

British Columbia Electric Ry.—Gross earnings for April, $85,870, against $70,823 for April, 1905. Working expenses, $52,663; renewal funds, $8,500; approximate income from investments, $7,967; net income, $32,674; against $41,090 working expenses; $6,695 renewal funds, $2,750 approximate income from investments; $25,788 net income for April, 1905. Aggregate gross earnings for ten months ended April 30, $955,257; net earnings $420,142, against $759,332 gross and $304,900 net for same period, 1904-05.

Calais Street Ry.—This street railway makes a circuit of the four towns, Calais and Milltown, Me., and Milltown and St. Stephen, N.B., connection being made by a bridge across the St. Croix River. According to the returns for the year ended June 30, 1905, published in the report of the Railroad Commissioners for the State of Maine, the line is seven miles in length, three of which are leased, and its rolling stock comprises three closed, four open cars, one work car, and one snow plow. The total earnings for the year were $27,854.98, the operating expenses $22,901.03, leaving net earnings of $4,953.95. The interest on funded debt amounts to $5,000, and the state and local taxes to $555.15, thus showing a deficit of $601.20 on the operations for the year. The total deficit at June 30, 1905, amounted to $12,450.

Halifax Electric Tramway.—Railway receipts for May $12,251.81, against $10,710.36 for May, 1905. Total receipts, railway, electric lighting and gas for May, $26,000.52, against $24,686.16 for May, 1905.

Montreal Street Ry.—Passenger earnings for May, $259,951.31; total earnings $264,252.33, against $232,999.06 passenger and $236,399.49 total for May, 1905. Operating expenses, $149,073.96; city percentage on earnings, $18,315.52; interest on bond and loans, $15,-707,84; contingent for renewals, $13,212.62; surplus, $47,253.98; against a surplus of $28,748.60 for May, 1905. Total earnings for eight months ended May, $1,906,190.04; surplus $424,856.93 against $1,675,791.18 total earnings and $385,210.72 surplus for same period 1905. A by-law was submitted to the Montreal City Council, June 4, to extend the franchise of the M.S. Ry. for a period of 32 years, which would give a franchise of 50 years from the present date. The proposal was defeated. W. G. Ross, Managing Director M.S. Ry., stated June 7 that the company had nothing to do with the bringing forward of the proposition.

Niagara, St. Catharines and Toronto Ry.—Gross earnings for May, $20,369, against $19,116.82 for May, 1905.

Quebec Ry., Light and Power Co.—R. Forget, M.P., has been elected a director to succeed S. N. Parent, who has resigned since his appointment as chairman of the National Transcontinental Ry. Commission.

South-Western Traction Co.—At the annual meeting of shareholders in London, Ont., June 4, reports were presented showing the progress of construction work, and making reference to the early opening of the first section of the line for traffic. Following are the officers and directors for the current year: President, F. G. Rumball; Vice-President, Dr. McKay, Ingersoll, Ont.; Secretary, A. E. Welch; other directors: H. M. Rumball, Capt. T. E. Robson, Ilderton, Ont.; Col. McEwen, Byron, Ont. Except where otherwise stated the officers and directors reside in London. A. E. Welch, who has during the construction period acted as General Manager, has now given up that position, acting, however, as Secretary, and F. W. Mower, heretofore on the operating staff of the Detroit United Ry., has been appointed General Manager.

Toronto Ry.—Car earnings for May, $248,-532.39, against $225,768.23 for May, 1905.

Electric Railway Notes.

The Levis County Ry. has added several new open cars to its rolling stock.

F. W. Pratt has been appointed construction engineer London Street Ry.

M. Dearden, for 14 years track foreman Montreal Street Ry., died in that city recently, aged 70.

The St. John's, Nfld., Street Ry. on June 1 placed an eight minute service in operation on its lines instead of the ten minute one heretofore in operation.

The by-law for submission to the Winnipeg voters permitting the operation of street cars on Sundays, has been prepared by the city clerk, and the voting was expected to take place at the end of June.

J. S. Clarke of Paris, Ont., who was associated with the promotion of the Grand Valley Ry., and other railway projects in the vicinity of Brantford, was arrested at Paris, June 6, on a charge of obtaining $365 under false pretences on a promissory note.

W. N. Warburton of the Chatham, Wallaceburg and Lake Erie Rd., and formerly of the Niagara, St. Catharines and Toronto Ry., is a provisional director of the Dominion District Steam Heating Co., of Chatham, which has been incorporated under the Ontario Companies' Act.

The Montreal Street Ry. Co. has placed an order with Babcock & Wilcox, Ltd., Montreal, for 10 water tube boilers, aggregating over 5,000 h.p., and equipped with their patent superheaters and chain grate stokers. These are to be placed in the power house which the M.S.R. Co. is erecting at Hochelaga.

The Montreal Street Ry. Co. has ordered a 1,000 k.w. Westinghouse railway generator and 500 k.w. Westinghouse motor generator sets from the Canadian Westinghouse Co. An order has also been given for 20 quadruple equipments of motors and 50 sets of Westinghouse air brakes with motor driven compressors.

The third annual meeting of the British Columbia Electric Ry. Co.'s Sick Benefit Association was held at Victoria recently. The reports showed the society to be in a flourishing state. The principal officers are: President, A. T. Goward, Victoria; Vice-President, J. M. Munnis; Secretary-Treasurer, J. G. Battersby. A project for a pension fund is under consideration by the company, and J. C. Buntzen, Managing Director, who was in B.C. during May and June, discussed it with representatives of the employes.

Grain Elevator Notes.

The elevator at Prescott, Ont., has resumed business, after having been closed for several years.

The Wyoming Grain Warehousing Co. has surrendered its charter to the Ontario Government and the company has been dissolved as from May 19.

The elevator, which is now under construction at Tiffin, near Midland, Ont., on the G.T.R., will not be ready for operation until the opening of the season of navigation of 1907.

The elevator and other property of the Frontenac Cereal Co., Kingston, Ont., was not sold when offered under order of the courts. It is understood that a re-organization of the company is being arranged.

A Port Arthur, Ont., report that the Canadian Northern Ry. had arranged to lease its terminal elevators at that point to the Empire Elevator Co., has been denied at the company's operating offices at Winnipeg, Man.

Press reports from the Pacific Coast state that the C.P.R. has under consideration plans for the erection of grain elevators at Vancouver, and other B.C. points; and that the Great Northern Ry. (U.S.) will erect a grain elevator at New Westminster.

The Great West Power and Machinery Co. has been incorporated under the Manitoba Companies' Act, with a capital of $500,000 and offices at Winnipeg, for the purpose of carrying on a number of businesses, including the construction and operation of elevators and flour mills. The provisional directors are: J. D. and W. M. Flavelle, Lindsay, Ont.; C. B. McAllister, Peterborough, Ont.; Jas. Stuart, Winnipeg; A. Kelly, P. C. Mitchell, Brandon, Man.

The Grand Trunk Pacific Terminal Elevator Co. has been incorporated under the Dominion Companies' Act, with a capital of $5,000,000 and offices at Montreal, to construct and operate grain elevators throughout Canada, and in connection therewith to carry on a number of allied businesses. The provisional directors are: C. M. Hays, W. Wainwright, W. H. Biggar, K.C., officers of the G.T.R.; A. P. Stuart, Montreal; N. Bawlf, Winnipeg.

The Ogilvie Flour Mills Co.'s elevator at Fort William, Ont., which was completed in the beginning of 1904 by the Macdonald Engineering Co., of Chicago, at a cost of about $300,000, slid forward on its foundations for about 30 ft., and partially toppled over, May 27. The elevator which has a capacity of 500,000 bush., and contained 350,000 bush. at the time of the accident, was a steel bin construction on a concrete and pile foundation. The foundations appear to have given way, and the whole structure slid forward, damaging the bins, and letting large quantities of the grain out. It is expected that about 60% of the grain in the elevator, most of which belonged to shippers, will be saved. Referring to the question of liability for the loss F. W. Thompson, Vice-President of the company, said June 4: "Referring to my company's notice that owners of the grain stored in the wrecked elevator must share in the general average of the loss, while our solicitors definitely advise that this position is absolutely sound in law, my company is willing, in the interests of all purchasers of grain, to join with the grain exchange in petitioning the Dominion Government to amend the Grain Act by making all elevators, both terminal and otherwise throughout Canada, responsible in future for all such losses. The Ogilvie Co. will then undertake to pay and make good to all storers in their Fort William elevator any loss occasioned by the recent elevator accident, as if such amended act applied to this past loss. As the Dominion House is now in session, and as the seriousness of the question to all grain shippers has been made apparent by the recent accident, I would urge immediate action along this line." It is impossible to state what was the cause of the accident, and this will not be definitely known until the whole structure has been taken down. The company has decided to rebuild.

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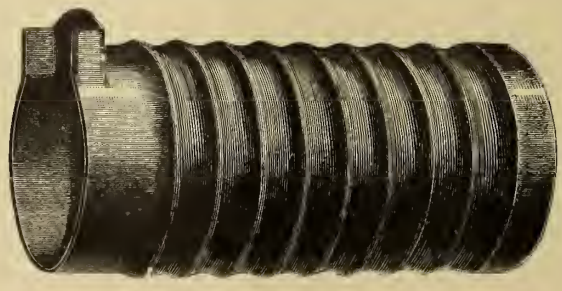

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MARINE DEPARTMENT

LIST OF STEAM VESSELS REGISTERED IN CANADA FROM MAY 15 TO JUNE 15.

Name.	No.	Where and When Built.	Engines, etc.	Length	B'dth.	Depth.	Gross tons.	Reg. tons.	Home Port.	Owners.
				ft.	ft.	ft.				
Armour	121,850	Burk's Falls, Ont., 1906	Screw 16 N.H.P.	87.5	17.5	6.2	191	115	Toronto, Ont.	R. J. Watson, Burk's Falls, Ont.
Bessie	121,745	Burton, Wash., 1898	" 2 "	33.0	12.3	4.5	15	10	Vancouver, B.C.	T. Gasaway (Ltd.), Nanaimo, B.C.
Beth	121,746	Vancouver, B.C., 1905	" ½ "	25.0	6.0	2.7	2	2	" "	R. P. McLennan, Vancouver, B.C.
Beverley	106,075	Belfast, Ireland, 1897	" 370 "	255.0	34.0	14.7	1517	873	Halifax, N.S.	H. McInnes, Halifax, N.S.
British Lion	121,915	Simcoe, Ont., 1903	" 2 "	36.0	10.0	4.0	22	15	Kenora, Ont.	J. Harty, Fort Frances, Ont.
Chieftain III.	117,129	Garden Island, Ont., 1906	Paddle, 48 "	142.4	39.4	9.3	355	147	Kingston, Ont.	Calvin Co., Kingston, Ont.
City of Meaf'd	117,082	Meaford, Ont., 1906	Screw 28 "	111.0	24.0	8.5	328	223	Collingwood, Ont.	J. Perks, et al., Meaford, Ont.
Clayburn	121,741	Vancouver, B.C., 1906	" 26 "	73.0	17.9	8.4	76	51	Vancouver, B.C.	W. H. Armstrong, Vancouver, B.C
Denisa	121,669	Portneuf, Que., 1905	" 6 "	55.8	14.8	6.4	38	26	Quebec, Que.	J. A. Lemay, Portneuf, Que.
Eno	121,839	St. Henry, Que., 1906	" 2 "	32.5	8.3	5.8	7	5	Montreal, Que.	Mrs. I. O. Moseley, Montreal.
Florence	121,826	Verdun, Que., 1905	" 3 "	35.3	6.0	2.8	3	2	" "	R. C. Smith, K.C., Montreal.
Gorden	121,916	Fort Frances, Ont., 1904	" 4/5 "	28.0	6.5	3.5	7	5	Kenora, Ont.	J. Harty, Fort Frances, Ont.
Haidee	121,742	Vancouver, B.C., 1906	" 1 "	34.3	10.8	5.0	14	9	Vancouver, B.C.	W. A. Bauer, Vancouver, B.C.
Hampton	121,834	Hampton, N.B., 1905	Paddle 34 "	100.1	21.3	5.3	183	115	St. John, N.B.	Kennebecasis SS. Co., Hampton, N.B.
Herton	116,369	Goderich, Ont., 1906	Screw 24 "	72.0	16.1	8.5	66	45	Goderich, Ont.	W. Marlton, Goderich, Ont.
J. M. Smith	112,309	Winnipeg, Man., 1905	Paddle, 8 "	120.0	21.0	4.0	179	122	Winnipeg, Man.	Pioneer Nav. & Sand Co., Winnipeg, Man.
Lancaster	121,824	Lancaster, Ont., 1895	Screw 3 "	65.9	18.2	4.8	40	27	Montreal, Que.	L. Marcil, Lancaster, Ont.
La Tuque	121,830	Grandes Piles, Que., 1906	" 6 "	76.0	20.4	4.7	110	79	" "	O. Laing & M. Cloutier, Gr. Piles, Que.
Lucina	121,668	Portneuf, Que., 1905	" 3 "	47.5	14.8	6.3	32	22	Quebec, Que.	J. Ford, jr., Portneuf, Que.
Mary P. Hall	121,825	Ogdensburg, N.Y., 1898	" 42 "	82.2	20.3	10.2	104	43	Montreal, Que.	Montreal Transportation Co., Montreal.
Monarch	111,886	Gore's Landing, Ont., 1906	" 6 "	84.0	14.0	5.7	73	50	Peterborough, Ont.	W. C. Harris & D. McAllister, Gore's
Norway Belle	122,011	Bristol, Que., 1905	" 2 "	66.7	25.8	4.7	46	43	Ottawa, Ont.	A. Macfarlane, Bristol, Que. [L'd'g., Ont
Orca	117,128	Kingston, Ont., 1905	" 3 "	34.0	6.0	3.3	4	3	Kingston, Ont.	A. F. Macnee, Kingston, Ont.
Thetis	121,740	Vancouver, B.C., 1906	" 1 "	22.3	6.1	2.6	2	1	Vancouver, B.C.	G. Buscombe, Vancouver, B.C.
Wiking	121,743	Eburne, B.C., 1905	" 1 "	30.0	9.0	3.0	8	5	" "	J. Anderson, Eburne, B.C.
Yuno	121,744		" 1 "	26.0	10.4	3.6	7	5	" "	E. W. Stark, Vancouver, B.C.

LIST OF SAILING VESSELS AND BARGES REGISTERED IN CANADA FROM MAY 15 TO JUNE 15.

Name.	No.	Where and When Built.	Rig.	Length	B'dth.	Depth.	Gross tons.	Reg. tons.	Home Port.	Owners.
Atlantic	121,870	La Have, N.S., 1906	Schr.	72.4	22.5	9.0	81	81	Lunenburg, N.S.	Atlantic Fish Co., Lunenburg, N.S.
Basile	111,900	Belliveaux Cove, N.S., 1906	"	95.0	27.8	10.0	182	158	Weymouth, N.S.	B. Belliveaux, Belliveaux Cove, N.S.
Cassie Belle	116,969	Meteghan, N.S., 1906	Sloop	28.5	13.0	5.6	14	14	St. Andrew's, N.B.	B. A. Cheney, Grand Manan, N.B.
D. Gill	121,950	Pierreville, Que., 1906	"	107.6	23.2	7.2	120	117	Sorel, Que.	W. Gill, Pierreville, Que.
Earl Grey	116,904	Port Greville, N.S., 1906	Schr.	144.3	34.0	12.1	442	379	Parrsboro, N.S.	G. M. Cochrane, et al., Fox River, N.S.
Edmond	121,828	Leclercville, Que., 1906	Sloop	75.1	6.6	8.6	73	68	Montreal, Que.	E. Perusse, Leclercville, Que.
Eldora	121,866	La Have, N.S., 1906	Schr.	76.6	22.6	9.0	79	79	Lunenburg, N.S.	Atlantic Fish Co., Lunenburg, N.S.
Emma H	121,992	Mahone Bay, N.S., 1906	"	73.0	22.7	8.3	71	71	" "	A. Ernst, Mahone Bay, N.S.
Gilley No. 3	117,157		Barge	72.6	26.0	6.0	110	110	N.Westminster, B.C	Gilly & Gilly, New Westminster, B.C.
Gladys F	121,867	La Have, N.S., 1906	Schr.	67.5	22.0	8.9	72	72	Lunenburg, N.S.	J. N. Rafuse, La Have, N.S.
Gwenola	121,827	Dorval, Que., 1906	Sloop	35.0	8.2	2.6	4	4	Montreal, Que.	Hon. Justice Davidson, Montreal.
Hazel	121,863	La Have, N.S., 1906	Schr.	73.8	21.6	8.4	71	71	Lunenburg, N.S.	J. W. Publicover, La Have, N.S.
HildaM.Backm n	121,993	" " 1906	"	80.0	23.8	8.8	81	81	" "	J. G. Backman, Rosebay, N.S.
Mabel C	121,880	Cape Island, N.S., 1905	Sloop	32.0	10.6	6.0	10	10	Yarmouth, N.S.	A. Nickerson, Cape Island, N.S.
Marion C	117,149	————, 1877	B'k't'e	137.6	29.6	15.8	482	457	Halifax, N.S.	C. F. Longley, Halifax, N.S.
Matilda	121,879	Shelburne, N.S., 1905	Sloop	32.0	11.0	6.0	10	10	Yarmouth, N.S.	E. P. Crowell, Port La Tour, N.S.
Mildred M. Bell	121,864	La Have, N.S., 1906	Schr.	64.8	20.5	7.5	54	54	Lunenburg, N.S.	C. W. Bell, La Have, N.S.
Millie Louise	121,865	Mahone Bay, N.S., 1906	"	85.6	24.0	9.0	89	80	" "	A. Ernst, Mahone Bay, N.S.
Petite	121,869	" " "	"	65.6	20.4	7.8	61	61	" "	J. D. Sperry, Petite River, N.S.
Rodrid Grace	117,095	L'Ardoise, N.S., 1906	"	43.0	12.5	6.0	17	17	Arichat, N.S.	H. & J. Burette, L'Ardoise, N.S.
Rupert	121,991	Sable River, N.S., 1906	"	74.8	22.4	8.9	78	78	Lunenburg, N.S.	J. N. Rafuse, La Have, N.S.
Sadie No. 5	116,940	Vancouver, B.C., 1904	Barge	90.0	28.0	6.6	120	107	Victoria, B.C.	G. McGregor, Victoria, B.C.
St. Antoine	121,667	L'Islet, Que., 1906	Sloop	51.0	17.8	4.9	25	25	Quebec, Que.	A. Caron, L'Islet, Que.
Ste. Anne	117,187	Shippigan Island, N.B., '06	Schr.	37.0	13.0	5.4	13	13	Chatham, N.B.	J. B. Noel, Shippigan Island, N.B.
Selina	121,878	Tusket Wedge, N.S., 1906	Sloop	35.0	11.3	7.0	14	14	Yarmouth, N.S.	A. & L. Cotreau, Tusket Wedge, N.S.
Shamrock	122,041	Grand Manan, N.B., 1901	"	33.0	11.0	5.0	10	10	St. Andrew's, N.B.	W. S. Foster, Grand Manan, N.B.
Surge	121,814	Gilbert's Cove, N.S., 1906	"	37.0	14.6	5.4	17	17	Digby, N.S.	J. D. White, Gilbert's Cove, N.S.
Utowana	121,868	La Have, N.S., 1906	Schr.	66.4	22.0	8.9	71	71	Lunenburg, N.S.	J. N. Rafuse, La Have, N.S
Vigilant	116,970	Clark's Harbor, N.S., 1906	Sloop	33.7	12.1	5.8	12	12	St. Andrews, N.B.	W. Cossaboon, Grand Manan, N.B.

Capt. C. Moller will shortly be appointed by the Department of Marine, local examiner of masters and mates, with headquarters at Toronto.

An order-in-council has been issued prohibiting the passing through the canals of the Dominion, of any vessel carrying gunpowder, dynamite, nitro-glycerine or other explosives, unless with the authority in writing of the Deputy Minister of Marine, and then only upon conditions set forth in the permit. The penalty for any violation of the regulations is fixed at $400.

Ten years ago the Dominion Government fleet of cruisers, lighthouse tenders, etc., comprised 17 steamers, and the cost of their maintenance for the year ended June 30, 1896, was given in the report of the Department of Marine and Fisheries as $273,065.47. Sixteen of the steamers were owned by the Government, and one was chartered. At June 30, 1905, the Government fleet comprised 27 steamers owned, and four chartered, the cost of maintenance during the year being $1,044,477.36.

The Kilkeel Co., which was incorporated recently under the Dominion Companies' Act, with a capital of $20,000 and offices at Toronto, owns the str. Kilkeel, and its officers are: President, A. W. Mackenzie; Vice-President, D. B. Hanna; Secretary, L. W. Mitchell; all of the Canadian Northern Ry. The Kilkeel is a screw str., official number 102,022, Parrsboro, N.S.; was built at Paisley, Scotland, 1895, her dimensions being: length, 135 ft.; breadth, 21 ft.; depth, 9.4 ft. Her gross tonnage is 252, and register 156 tons; while her engines are of 39 n.h.p. She is engaged in the coasting trade in the Maritime Provinces.

Referring to the circular issued by the Secretary of the Dominion Marine Association respecting the proposed U.S. tonnage tax on vessels. The bill referred to has passed the U.S. Senate, but it is not likely to make much further progress this session. The Dominion Marine Association enlisted the support of the Dominion Premier and Minister of Marine at Ottawa in June, and received a promise that the matter would be taken up at once with the authorities at Washington. The assistance of the Lake Carriers' Association, of the Association of Passenger Steamboat lines of the U.S. was also secured, and it is said that U.S. Secretary of State Root is taking an interest in the question, and has asked that action be postponed. Similar legislation in Canada would impose a similar or greater burden upon the greater lake tonnage of the U.S., and it is therefore urged that should the bill be passed the Great Lakes and St. Lawrence should be excluded from its operation.

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Railway Car Ferries in Canada

The development of car ferries by railways within recent years has been most marked, and special attention has been directed to it in Canada by the launching of the Ashtabula at Detroit, Mich., for a line, in which the C.P.R. is interested, between Ashtabula, Ohio, and Port Burwell, Ont.; and the ferry steamer now under construction at Toronto, for the G.T.R. and the Rochester and Pittsburg Ry., to run between Port Hope, Ont., and Charlotte, N.Y. At present there are six car ferry lines operating between Canadian and U.S. points, owned by two Canadian and three U.S. companies. There are also six car ferry lines entirely in Canada, five being operated by the C.P.R. in British Columbia, and the sixth by the Intercolonial Ry. across the Straits of Canso. This latter ferry is not referred to in the article on car ferries in America, appearing in the Railroad Gazette, from which the following extracts have been made.

With some small modifications, nearly all companies use the same methods for transferring the cars to the boats and securing them during transit. A counterweighted bridge is hinged at the shore end and usually supported at the outer end on a pontoon. It is raised or lowered to the level of the float by pulleys, hand power being applied directly on a winch or through a hydraulic ram. If the route of the boat is in comparatively quiet waters, it is very simple to fasten the cars to the float sufficiently firm so that there is no danger of their breaking loose. There are three common methods, and most companies use at least two of them. They are: setting up the brakes on each car, chocking the wheels, and making the car fast by chains fastened to eyebolts in the deck of the float and passed around either the axle, truck, bolster or the knuckle of the coupler. Instead of ordinary chocks, the G.T.R. uses rail clamps which stand 12 in. above the rail in front of the wheels, while on the Northern Pacific they fasten eccentric iron blocks to the rails. The Pere Marquette places jacks at an angle under the ends of the body of the car, set so as to take the weight slightly off the bearings.

BESSEMER AND LAKE ERIE RD.—From Conneaut, Ohio, to Port Stanley, Ont., 58 miles. It operates one ferry having a capacity of 30 cars, which makes the trip in about 5 hours, at an average speed of 12 miles an hour, and makes three trips a day, averaging 80 cars a day.

THE CANADIAN PACIFIC RY. operates five car ferries, one in Ontario and four in British Columbia. Between Windsor, Ont., and Detroit, Mich., two passenger and freight ferries are employed, each having a capacity of 16 cars. The average speed per hour is 9 miles, and the trip occupies 30 minutes. The average number of cars moved daily is 200.

From Proctor, B.C., two lives are operated, one to Kootenay Landing, 30 miles; and the second to Lardo, 63 miles, both being freight lines. There are 3 tugs and six floats, capable of accommodating 86 cars used in the service, the largest float having a capacity of 15 cars. The average speed is 7 miles an hour, and the trips are made in from 3 to 5 hours. The average number of cars moved per day is 200. One trip per week only is made to Lardo.

Between Slocan City and Rosebery, B.C., 25 miles, one tug and two floats, having a capacity of eight cars each, are employed. The trips are made in 3½ hours, at an average speed of 7 miles an hour, and 32 cars are moved daily.

Between Nakusp and Arrowhead, B.C., 36 miles, one tug and two floats, having a capacity of eight cars each, are employed. The trips are made in 5 hours at an average speed of 7 miles an hour, and 32 cars are moved daily.

ESQUIMALT AND NANAIMO RY.—Owned by C.P.R.,—between Vancouver and Ladysmith, B.C., 46 miles; one tug and one float, having a capacity of 12 cars, are employed. The trips are made in six hours at an average speed of 8 miles an hour, and 24 cars are moved daily.

GRAND TRUNK RY.—From Windsor, Ont., to Detroit, Mich., ½ mile. Three steamers having a capacity of 44 cars, the largest of which will carry 16 cars, are employed, and make the trip in 30 minutes. A total of 540 freight and passenger cars are moved daily.

The G.T.R. also operates a car ferry on Lake Michigan, between Grand Haven, Mich., and Milwaukee, Wis.

MICHIGAN CENTRAL RD.—From Detroit, Mich., to Windsor, Ont., ½ mile. Four steamers with a capacity of 21 cars each are employed carrying freight and passenger cars. The average speed is six miles an hour, and 1,090 cars are moved daily. The M.C.R. steamer Detroit was built in 1904 for use between Detroit and Windsor. Her capacity is 21 freight cars; her registered tonnage is 1,307 tons, and gross tonnage 3,089 tons. The hull is of steel and is 308 ft. long over all, and 77 ft. wide over all. She draws 10 ft. of water when unloaded. She has four 10-ft. 6-in. propellers, two in front and two behind, driven by four engines developing 3,600 h.p. The high-pressure cylinders are 24 in. by 33 in., and the low-pressure 48 in. by 33 in. The Transfer, also operated over this route, is unique in having side wheel as well as one propeller.

THE PERE MARQUETTE RD.—Operates in all four lines on Lake Michigan, from Ludington to Kewaunee, Manistique, Manitowoc and Milwaukee, and two between Michigan and Ontario. These latter are for freight only, and are operated between Port Huron and Sarnia, and Detroit and Windsor. The company has nine steamers with a carrying capacity of 245 cars, the largest of which has a capacity of 30 cars, and 450 cars are moved daily. Separate returns are not given for the several lines.

The Pere Marquette steamers are particularly well known because of the great distance they travel, which necessitates an almost seagoing boat. The company has six steel steamers of 30 cars capacity and three of less, the larger capacity boats being used on Lake Michigan. Pere Marquette 17, is one of the latest of these; she was built in 1901, has twin screws, and is 350 ft. long over all, with 56 ft. beam. She has four tracks on the main deck, and above the spar deck are staterooms for passengers and crews. One of the most important problems these ferries have to contend with is ice. These boats are built with a special view to protection against this, the bow plates being double for 60 ft. and the hulls being built out aft to enclose the propeller shafts. Two triple expansion engines are operated independently. The cylinders are 19 in., 31 in. and 52 in. in diameter, with 36-in. stroke. The maximum indicated horse-power developed is 3,500, giving the vessel a maximum of 15 miles per hour, though the average is 12½. The boats ply between Ludington and Manitowoc, 56 miles, and are in service all the year round.

Marine Notes from the Twin Ports

Our Port Arthur, Ont., correspondent wrote on June 12, as follows: Wheat movement out of the twin ports has been exceptionally light for the past 10 days, very little more than fills the regular liners of the C.P.R., Northern Navigation Co., Montreal and Great Lakes, and Merchants Line. The total quantity of wheat, oats, flax, and barley moved to date, this season, is 13,947,758 bush.; of this quantity 3,325,330 went out in U.S. bottoms. It is expected that offerings will be freer toward the end of the month. Oats has been an important feature of the tonnage; 896,960 bush. having gone out, to date, this season. It would appear as if this commodity will soon fill a large space in the carrying trade of these ports. The Georgian Bay rate is 1¾c. for the current month. Kingston and Montreal rates are at corresponding figures. All the package freight lines are doing a heavy westbound business. This class of tonnage will exceed anything in the history of Canadian lake trade this season.

Coal receipts at the Canadian Northern coal docks continue to be heavy. At this writing, vessels with 16,000 tons on board, are waiting their turn at the docks. When these docks are completed they will be the finest and best equipped on the lakes. Breakwater protection is urgently needed. The Dominion Government has plans prepared for a breakwater that will give the necessary protection. It is expected that work on this breakwater will be commenced during the present year; meantime, a temporary structure of piling, with timbers bolted on at the water level, is doing duty as a breakwater for the coal docks.

The C.P.R. is calling for tenders for a 1,300 ft. wharf and freight shed, with the most up-to-date appliances for handling its immense package freight business at Fort William. It will be located on the Kaministiqwia River, west of elevator B.

The Western Elevator Co. began work yesterday on a 650,000 bush. elevator, located near the power house at Fort William.

The unfortunate accident to the Ogilvie elevator at Fort William is very much regretted. Men are actively engaged in emptying the wrecked structure. Up to the present about 100,000 bush. have been taken out of it. It is the opinion of F. W. Thompson that 90 per cent. of the grain will be saved. The company has let a contract for a larger elevator of the same form of construction, to be erected immediately behind the wrecked elevator. Grain will be delivered into vessels on belt conveyors.

Great Lakes Freight Matters

Our Winnipeg correspondent wrote, on June 15: Freight matters, so far as Canadian vessels are concerned, have now reached the summer slack period and a majority of the boats are engaged in the ore, coal and steel rail trades, with practically no demand for tonnage from grain shippers, the Owen Sound and Point Edward liners being more than able to take care of all grain offering, and in the other trades mentioned, the supply tonnage is a little ahead of the loads offering, resulting in rather a weak market all around, but with the prospects of another bumper crop in the West, the indications are that the present season will be the busiest ever experienced by the Canadian merchant marine, as with the unusual activity now prevailing throughout the West in the matter of railway construction, the present fleet will be kept in that trade until the close of navigation, and will be the cause of a very severe shortage of Canadian tonnage to handle the grain crop, and will again be the cause of a majority of the Canadian crop finding an outlet via the port of Buffalo and other U.S. channels, to the great loss of Eastern Canadian railway and mercantile interests.

Ice-breaking Steamers for Canada.

The Dominion Government is having constructed at Barrow-in-Furness, Eng., a twin-screw ice-breaking tug for the River St. Lawrence. The steamer is to be ready for delivery, after speed trials, on Sept. 13, and there is a penalty of £40 per working day for delay after that date. The designs have

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"	"	5.00	"	"	119.85,	"	"	"	40.81	"	"	100.00
"	"	5.50	"	"	131.80,	"	"	"	44.89	"	"	110.00
"	"	6.00	"	"	143.80,	"	"	"	48.98	"	"	120.00
"	"	6.50	"	"	155.80,	"	"	"	53.05	"	"	130.00
"	"	7.00	"	"	167.80,	"	"	"	57.16	"	"	140.00
"	"	7.50	"	"	179.75,	"	"	"	61.22	"	"	150.00
"	"	8.00	"	"	196.70,	"	"	"	65.28	"	"	160.00

Purchasers who do not undertake to go into residence on the land are required to pay one-sixth of the purchase money down, balance in five equal annual instalments with interest at the rate of 6 per cent. per annum.

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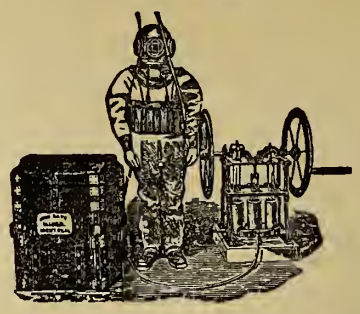

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been very carefully drawn, so as to provide great power and strength, and every known device has been put in which will add to the efficiency of the vessel. Her dimensions are: length between perpendiculars, 172 ft.; breadth, moulded, 32 ft.; depth, 18 ft.; draft, mean with flat plate keel normal, 12 ft.; draft, mean when breaking ice, 13 ft.; displacement in tons at 12 ft. draft, about 1,030 tons. It is provided that her speed at 12 ft. draft on the measured mile is to be 14 knots an hour.

The object which the Government had in view in ordering this tug is to carry out the suggestions contained in the third interim report of the Royal Commission on Transportation, dated June 15, 1904. In this report the Commissioners, after reviewing the expressions of opinion from engineers and others, respecting the feasibility of the winter navigation of the St. Lawrence River and Gulf, said: "It would be necessary to prevent the formation of the ice bridge at Cap Rouge and to keep the channel open throughout the winter up to Batiscan or possibly Three Rivers. The prevention of the ice jam at Cap Rouge would not be a difficult matter. The formation of this ice bridge is the result of a large field of ice being dislodged by the high spring tides from the banks opposite Ste. Croix, and floating down intact with the falling tide is jammed in the narrows at Cap Rouge. The ice is not thick, nor packed. If taken within two or three tides, it would not require much of an ice-breaker to break through and destroy the bridge. The danger of this ice bridge results from its presence when the ice from Batiscan and Three Rivers comes down and is stopped by it, the whole forming a mass of ice of immense thickness, which becomes arched in the narrows and frequently remains after the river is elsewhere clear until the high tides near the end of April. It is also believed that with a suitable ice-breaking steamer, aided by a dredge tug armed for the service, there would be no difficulty in preventing the ice jam from forming at Cap Rouge, and in keeping the channel clear throughout the winter up to Batiscan and probably Three Rivers. The steamer would also be available to convoy or go to the aid of commercial steamships between Quebec and the Traverse. During the summer she would be fully occupied in sweeping the channel above and below Quebec, and in attending the proposed dredging of either the north or the south channel below Quebec. Between Three Rivers and Montreal it is considered that, for the present, it would only be advisable to keep the channel open and convoy steamships for about two weeks later in the autumn than navigation is now continued. In the spring, as soon as the fine weather sets in, and the ice is formed over the snow, another ice-breaking steamer similar to the one to be stationed at Quebec, and aided by a similar dredge tug, could start from Sorel and steam through Lake St. Peter to Three Rivers. Returning, they could break up the ice and allow the current to carry it away, and continue this to Montreal. After one season's experiment the success of this, or failure, would be demonstrated. It is believed that by this means navigation could be lengthened two weeks in the autumn and two weeks or a month in the spring. The removal of the immense masses of ice three weeks earlier each spring would certainly be of benefit to the climate in the Montreal district. This second ice-breaking steamer could be constructed suitable for the buoy service between Montreal and Quebec during the summer."

The Commissioners proposed the construction of a steamer for local commercial winter navigation below Quebec, occasional wrecking and lighthouse supply service in summer, at an estimated cost of $200,000; a steamer for the prevention of the formation of the Cap Rouge ice bridge and work in winter up to Batiscan or Three Rivers, and for the summer sweeping of channel above and below Quebec; and a third steamer for aiding navigation in the autumn and breaking up the ice between Three Rivers and Montreal, early in April, and for buoy service between Quebec and Montreal in summer. The str. Montcalm was built in England in 1904, for the first-mentioned service, and has been in service now two winters. It was first proposed to construct the second at the Government ship yard at Sorel, the plans to be prepared in England. The English firms, however, declined to submit plans in detail on the terms asked, and after the experience gained by the Montcalm, it was considered wiser not to attempt the construction of a vessel of this special class, which would be good, or a failure, according as to whether the designs and construction were of the very best, or otherwise. A complete statement of the conditions and difficulties, together with explanations and details, was forwarded to two firms of the very highest class in England and they were requested to quote for very early delivery. The estimate of the Superintending Engineer, for such a vessel of the very best type and construction, was $200,000. The quotations for a vessel of 160 ft. in length, from the two firms tendering, did not differ by $1,000, and the lower was accepted. As, however, a double bottom was stipulated, it was found that the necessary power could not be given in a vessel of that size and the dimensions were increased, and the order placed as already stated. The uses to which this tug will be put are in connection with improvements and navigation in the River St. Lawrence generally. The sweeping of the channel above and below Quebec will require a large part of her time, as well as the general towing and emergency work in connection with the powerful and heavy dredges of the ship channel fleet, which are now working between Montreal and the Traverse, a distance of 220 miles. In the autumn, when the ice is forming, this tug will be available for convoying ships from Montreal to the sea and giving aid to them, and assuring ship owners that a powerful vessel will be available to go to their assistance after all other wrecking plant is laid up for the winter.

Statistics of Canadian Shipping

The total number of vessels remaining on the registry books of the Dominion on Dec. 31, 1905, including old and new vessels, sailing vessels, steamers and barges, was 7,325, measuring 669,825 tons register tonnage, being an increase of 173 vessels, and a decrease of 13,013 tons register, as compared with 1904. The number of steamers on the registry books on the same date was 2,654, with a gross tonnage of 362,888 tons. Assuming the average value to be $30 per ton, the value of the registered tonnage of Canada on Dec. 31, 1905, would be $20,094,750. Following is a summary showing the number of vessels and their tonnage by provinces:

	Sailing Ships and Steamers	Steamers	Gross Tonnage of Steamers	Net Tonnage of Sailing Ships and Steamers
Nova Scotia	2,121	205	24,427	198,976
Ontario	1,942	1,347	155,221	178,848
Quebec	1,301	385	87,313	141,406
Brit. Columbia	712	445	70,342	79,954
N. Brunswick	938	147	13,028	49,145
P. E. Island	158	15	2,649	11,924
Manitoba	142	100	7,423	7,809
Yukon District	11	10	2,485	1,763
Saskatchewan	....	....	.....	.....
Grand Total	7,325	2,654	362,888	669,825
Total for 1904	7,152	2,543	353,514	672,838

There are ports of registry in eight of the nine provinces of the Dominion, Alberta being the only province in which no separate provision has been made for the registration of vessels. The only change made during the year is that a registry has been opened at Prince Albert, Sask. The Yukon Territory has its registry port at Dawson. These ports are distributed throughout the Dominion as follows: Ontario, 38; Nova Scotia, 21; New Brunswick, 7; Quebec, 6; British Columbia, 3; Prince Edward Island, Manitoba, Saskatchewan and Yukon Territory, one each.

The ports having a total net tonnage of 10,000 tons and over are:

Port	Vessels Steam	Sailing	Tonnage
Montreal, Que	230	377	98,691
Victoria, B.C	141	110	48,081
Windsor, N.S	15	91	43,746
Quebec, Que	149	485	39,144
St. John, N.B	81	273	33,353
Toronto, Ont	288	84	33,173
Ottawa, Ont	230	173	31,574
Parrsboro, N.S	5	114	27,976
Lunenburg, N.S	8	301	27,897
Kingston, Ont	113	85	24,689
Vancouver, B.C	206	88	21,700
Halifax, N.S	75	353	20,651
Yarmouth, N.S	15	91	17,625
Maitland, N.S	1	20	12,016
Charlottetown, P.E.I	15	143	11,924
St. Catharines, Ont	61	35	10,490
New Westminster, B.C	98	69	10,173

The largest vessels on the register are as follows:

STEAM.

Name	Home Port	Tonnage Gross	Register	h.p.
Bessie Dollar	Victoria, B.C.	4,329	2,798	244
Hazel Dollar	" "	4,304	2,804	241
Montreal	Montreal, Que.	4,282	2,299	386
M. S. Dollar	Victoria, B.C.	4,216	2,674	360
Midland King	Midland, Ont.	3,965	2,450	151
W. D. Matthews	Toronto, Ont.	3,965	2,450	151
Huronic	Collingwood, Ont.	3,330	2,211	245
Wyefield	Victoria, B.C.	3,235	2,089	302

SAILING.

Name	Home Port	Rig.	Register Tonnage
Agawa	Sault Ste. Marie, O.	barge	3,308
Lord Wolseley	Victoria, B.C.	barge	2,454
Everett G. Griggs	" "	b'ktine	2,351
Kings County	Windsor, N.S.	ship	2,061
Lady Templeton	Victoria, B.C.	bark	2,048

There are 42 sailing vessels registered of over 1,000 and under 2,000 tons register.

The number of new vessels built and registered during 1905 was 352, measuring 19,781 tons register tonnage. Estimating the value of the new tonnage at $45 per ton, it gives a total value of $890,145 for new vessels. The new vessels were built and registered as follows:

	Vessels	Tons
Nova Scotia	160	7,453
Ontario	85	5,735
British Columbia	51	3,536
New Brunswick	25	998
Quebec	24	1,438
Prince Edward Island	6	577
Manitoba	1	44
Total	352	19,781
Total for 1904	308	18,554

The names, dimensions, etc., of these vessels have been published in our columns from month to month, and lists are being published of the vessels registered during the current year. During the year the names of 30 vessels were changed.

In point of ownership of net tonnage Canada stands ninth among the maritime nations of the world, instead of eighth as in 1904, the change being due to the advance of Japan from tenth to eighth place.

The C.P.R. Steamboat Kuskanook.

The steamboat which the C.P.R. is having built at Nelson, B.C., for its lake and river trade has been launched and named Kuskanook, by Miss Hazel Gore, daughter of the Superintendent of the company's B.C. Lake and River Service. The Kuskanook is a stern-wheel type steamer, having the following dimensions: length, 195 ft.; breadth, 30 ft.; draught 5 ft. when steaming; she is fitted

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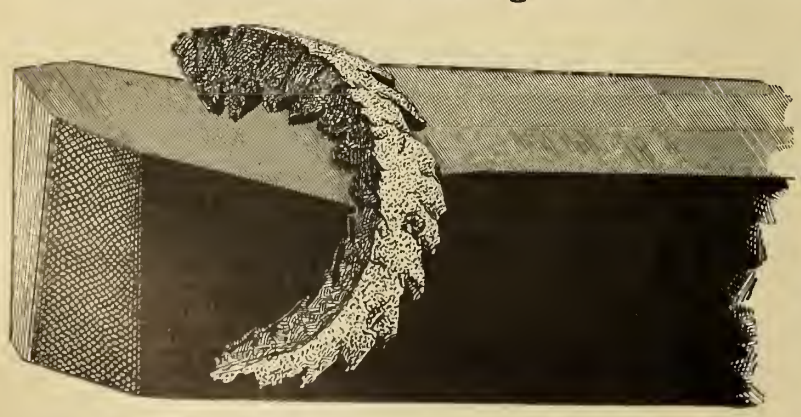

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with three decks—main, saloon and texas. On the main deck accommodation is provided for about 200 tons of cargo; baggage, express and mail; crews' quarters, cooking galley, icehouse, and bathrooms for passengers. The saloon deck extends the full length of the vessel and is given over entirely to the accommodation of passengers. There are 22 staterooms, each being fitted with one double and one single berth. There is a smoking-room 40 ft. long; a ladies' cabin 46 ft. long, and a dining-room having seating accommodation for 96 persons. On the texas deek there are 33 cabins, each fitted with two single berths; the chart room, and navigating officers' quarters are forward, and astern of the cabins is an observation room. The cabins are all steam heated, and eleetric lighting is provided throughout. The steamer is fitted with four rudders, and the stern wheel is 24 ft. in diameter, and 18 ft. long, having 20 buckets. The steamer was built at the company's yards. The engine was built by the Polson Iron Works, Toronto, and sent out to Nelson where it was installed. The engine is of the piston valve, high pressure type with independent cut-off type cylinders 22 in. diameter and 96 in. stroke. Steam is supplied by a locomotive type boiler, 84 in. diameter, with a 10-ft. firebox, at a pressure of 175 lbs. to the square inch. The pumps include a boiler feed pump, duplex, with five inch rams and 12 in. stroke, a sanitary pump, duplex, 4 in. rams and 12 in. stroke, and two 6 in. hand pumps double aeting. All the pumps can be instantly connected to the water service and hydrants for fire purposes. There are provided four lifeboats, four life buoys, 350 life preservers, thus providing safety appliances for the full number of passengers and crew. The trial trip will take plaee at an early date, when it is expeeted that a speed of over 18 knots an hour will be made. The work of construction was under the charge of Capt. J. C. Gore, the company's superintendent at Nelson, and D. Stephens, the company's engineer there.

Notices to Mariners.

The Dominion Department of Marine has issued the following:

No. 41. May 10—Nova Scotia—95. Halifax harbor, McNab Island, government rifle ranges.

No 42. May 11.—Ontario—97. Georgian Bay, east side, gas buoy lights in Parry Sound district not in operation temporarily, 98. Georgian Bay, south side, Lockerbie rock, gas buoy light not in operation temporarily.

No. 43. May 14.—Strait of Belle Isle and approaches.—99. Buoy moved temporarily in the Strait of Belle Isle, tide and current survey to be avoided.

No. 44. May 17.—Nova Scotia—100. Avon River, Windsor, range lights established on traffic and railway bridges.

No. 45. May 18.—British Columbia—101. Vancouver Island, Juan de Fuca strait, Sooke inlet, Whiffen spot, light established. 102. Victoria harbor, Berens Island, fog bell established. 103. Vancouver Island, cast coast, Nanaimo harbor, Protection Island, Gallows point, fog bell established.

No. 46. May 23.—Nova Scotia—104. Annapolis River, Annapolis, light improved. Prince Edward Island—105. South coast, Hillsborough bay, Prim reefs, bell buoy established. Labrador—106. North-east coast, Hamilton inlet, shoals reported in approach.

No. 47. May 25.—Quebec—108. River St. Lawrence below Quebec, Bellechasse Island, change in light. 109. River St. Lawrence, ship channel between Quebee and Montreal, Montreal harbor, changes in buoyage.

No. 48. May 29.—British Columbia—110. Strait of Georgia, Departure Bay, Black rocks, buoy discontinued. 111. Chatham Sound, Dodd passage, Port Simpson entrance, spar buoy established.

No. 49. May 30.—Ontario—112. River St. Lawrence, Cornwall Island, change in position of gas buoy.

No. 50. May. 31—Quebec—114. Chaleur Bay, Anse aux Gascons, light established.

No. 51. May 31.—Ontario—116. Lake Erie, Long Point, steam fog horn sounded temporarily.

No. 52. June 5.—Ontario—117. Georgian bay, south side, Collingwood harbor, rearrangement of lights.

No. 54. June 6.—Ontario—119. Georgian bay, east side, Parry Sound, Depot Island, change in character of light. 120. River St. Mary, Canadian Sault Ste. Marie canal, back light tower at lower entrance moved and increased in height.

No. 57. June 7.—British Columbia.—128. Ganges harbor, Horda rock, change in character of buoy. 129. False Narrows, beacons replaced by spar buoys.

The U.S. Hydrographic Department has issued the following:

No. 22. June 2.—Lake Erie—845. Pelee Island, wreck to northward, light exhibited.

Great Lakes Navigation Rules.

An order-in-council has been passed amending the Rules of the Road for navigating the Great Lakes, established by order-in-council April 25, 1905, as follows:

That article 2, subsection e, be rescinded and the following subsection substituted in lieu thereof:

(e) A steam vessel over 150 ft. register length when under way shall carry an additional white light visible all round the horizon at a distance of at least 3 miles. These two lights shall be so placed in line with the keel that one shall be at least 15 ft. higher than the other, and in such a position with reference to each other that the lower light shall be forward of the upper one. The vertical distance between these lights shall be less than the horizontal distance.

2. That article 15, subsection 2, be rescinded and the following subseetion substituted in lieu thereof.

2. By "sailing vessels" on the fog horn.

The old rules read as follows: Article 2, sub-sec. e: "A steam vessel when under way shall carry an additional white light similar to the light mentioned in sub-division A," the rest of the sub-section being as in the new one.

The first clause of article 15 and sub-sec. 2 thereof read as follows: "Sound signals for fog, etc. All signals prescribed by this artiele for vessels under way shall be given. (2) By 'sailing vessels' and vessels towed on 'on the foghorn.'"

Atlantic and Pacific Ocean Marine.

E. Reino, Montreal, has been registered as manager of the Finland Steamship Agency in that city.

The S.S. Loyal Briton, from Penarth, Wales, for Miramichi, N.B., went ashore June 3, about 12 miles north of Cape Race, Nfld.

The Beaucentaur, the first steamer of the Alley Line, between Vancouver, B.C., and New Zealand, reached Vancouver on her first trip, June 7, and left on her return trip, June 15.

It is understood that the Allan Line S.S. Bavarian, which went ashore on Wye Rock, near Quebec, will be abandoned by the underwriters, and the hull, after the valuable fittings have been removed, will be sold, to be broken up.

The Allan Line S.S. Virginian left Liverpool, Eng., May 24, and landed her mails at Rimouski, Que., May 31, making the trip in the net time of 5d. 20h. 40m. The distance between Tory Island, Ireland, and Cape Race, Nfld., was run in 90 hours.

There is a Quebec law which provides that every vessel coming into the province from any port of the world shall be liable to a tax of 1% upon its valuation. The legality of this act is being questioned by vessel owners, as it is said to affect national and not provincial interests.

The turbine S.S. Maheno, belonging to the Union Steamship Co., completed her first run to Vancouver, B.C., from Sydney, New South Wales, recently. The trip was made in 20d. 2h. 12m. actual steaming time, being 13h. 22m less than the previous record, which was made by the Manuka, in July, 1905.

Negotiations are still in progress between the C.P.R. and the British and Canadian Governments in reference to the renewal of the contract for a steamship service from Vancouver, B.C., to Japan and Hong Kong, for five years. The growth of the trade, it is claimed, warrants a largely increased service, and it is understood the C.P.R. is prepared to provide for this if a renewal of the subsidy can be arranged.

The Donaldson Line S.S. Hestia, from Glasgow, Scotland, for St. John, N.B., went ashore off Cape Sable, N.S., May 20, and was towed off and into Shelburne, N.S., leaking. She was subsequently towed to Halifax, where the cargo was discharged, and repairs made at the dry dock. On June 10, the Elder-Dempster Line str. Etolia, from St. John, N.B., to Barry, Wales, went ashore during a fog, near the same point as the Hestia.

The Empress of Ireland, the sister ship to the Empress of Britain, was given a trial trip by the builders at Glasgow, Scotland, June 6, when a speed of 20¼ knots an hour was made. The new steamer was taken over by the C.P.R. after the official trials on June 10, and proceeded to Liverpool, from which port she was timed to leave for Quebec, June 28.

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For Parry Sound and North Shore Ports.

Lv. Collingwood 8 a.m., Penetang 2 p.m., Midland 3 p.m., Mondays and Thursdays, via Inside route.

For Soo, Port Arthur, Fort William and Duluth.

Lv. Sarnia 3.30 p.m. June 1st, 4th, 11th, 13th. Sailings June 4th and 13th going through to Duluth. Regular sailings Monday, Wednesday and Fridays from June 18th.

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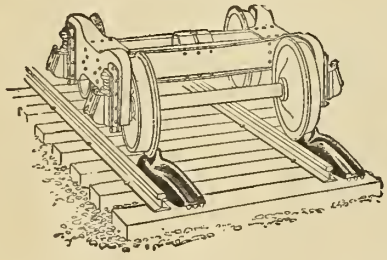

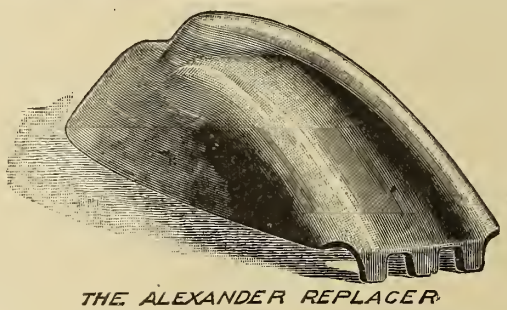

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A number of Irish-Canadians resident in Montreal have arranged to provide a set of colors for the new steamer upon her arrival at Quebec.

The C.P.R. S.S. Monteagle has arrived at Vancouver on her first trip across the Pacific ocean. The Monteagle was formerly in the company's Atlantic service, and left St. John, N.B., Jan. 21, reaching Liverpool, Feb. 7; she took on her cargo and sailed from the Bristol Channel Feb. 20, for Hong Kong, which was reached May 9; Yokohama, May 12, and Vancouver, May 26. The distance covered by the Monteagle on the trip was 22,503 miles, and no accident or delay of any kind occurred.

The question of the day of sailing of the mail steamers between Canada and Great Britain, and of the cutting out of the call at Moville, Ireland, is understood to be settled. The Deputy Postmaster-General has been in London, discussing the matter with the British postal authorities. The date of departure of the steamers from Liverpool will be Fridays, one day later than formerly, and the sailing day from Montreal will be Saturday. The call at Moville is to be cut out, as the quantity of mail taken on or put off there is not sufficient to justify the loss of time to the steamer, and there is no compensating advantage in the delivery of the mails, as the tender service between Moville and Londonderry is not very good. The ocean service is to be carried on by the Allan Line S.S. Victorian and Virginian, and the C.P.R. S.S. Empress of Britain and Empress of Ireland.

THE S.S. EMPRESS, BUILT RECENTLY FOR THE CHARLOTTETOWN STEAM NAVIGATION CO.

Maritime Provinces and Newfoundland.

The name of the bark Orion, official number 117,149, of Halifax, N.S., has been changed to that of Marion C.

The schooner Alexander R., which was sunk in Halifax, N.S., harbor by the str. Aranmore, was successfully raised, June 4, from a depth of 92 ft.

The hull of a tug for the Island Tug Co, Charlottetown, P.E.I., is being built at Shelburne, N.S. After being launched the hull will be towed to Yarmouth, N.S., to receive her engines.

The Reid Newfoundland Co.'s str. Glencoe struck a rock while going into Ramea, Nfld., June 4, and remained fast. She was subsequently towed off and taken to the company's dock at St. John's for repairs.

A number of charges have been preferred against Capt. J. H. Pratt of the Dominion cruiser Curlew, and A. B. Copp, Sackville, N.B., has been appointed commissioner to investigate and report upon the same. Capt. Pratt has been suspended pending the investigation.

The Court of Admiralty, sitting at Halifax, N.S., has directed the owners of the str. Aranmore to pay damages for the sinking of the schooner Alexander R. in Halifax harbor. The court found that the entire blame of the collision was due to the negligence of the Aranmore.

The North Sydney, N.S., Harbor Commissioners are asking authority from the Dominion Government to borrow, upon mortgage, such sums as are required for the purchase of real and other property, or for the improvement of the harbor, to an extent of not more than $6,000 at any one time.

The hull of a steamer for W. Leslie & Co., Madgalen Islands, Que., has been launched at Shelburne, N.S., and the engines are being installed at Halifax, N.S. The new steamer, which is 100 ft. in length, 22 ft. beam, and has a depth of hold of 9 ft., has been named Magdalen. She is intended for the towing and freight business.

The following appointments have been made: D. A. Barry, a member of the pilotage authority for the district of Pictou, N.S.; A. Haley, jr., harbor master at Whitehead, N.S.; H. K. Lewis, receiver of wrecks for Yarmouth County, N.S.; W. L. Oliver, measuring surveyor of shipping at Digby, N.S.; J. Smith, wharfinger at Bear Point, N.S.; and C. Macdonald, wharfinger at Nine Mile Point, P.E.I.

A proposal is under consideration at Clark's Harbor and other ports in Nova Scotia, for the establishment of an additional steamship line between Halifax and the north shore ports. W. E. Swartz, representing the Halifax Board of Trade, is the principal mover in the matter. The present suggestion is to have two steamers, one to run from Halifax to Clark's Harbor, and a smaller one to run in connection with it for the western ports.

The British str. Renwick, built of steel, by the Tyne Iron Shipbuilding Co., Newcastle, Eng., in 1890, and engined by the North-Eastern Marine Engineering Co., has been purchased by Mackenzie, Mann & Co. interests, and will be run by the Inverness Railway and Coal Co. in the coasting trade in the Maritime Provinces and the Gulf of St. Lawrence. The Renwick is 664 tons gross, 400 tons register, and carries 970 tons on a draught of 14½ feet.

The Canada Dredge Manufacturing and Purchasing Co. has been incorporated under the Dominion Companies' Act, with a capital of $500,000 and offices at Newcastle, N.B., for the purpose of constructing dredges and dredging machinery of all kinds, and to undertake contracts for dredging anywhere in Canada. The provisional directors are: W. H. Russell, Newcastle, N.B.; H. D. Arton, Redbank, N.B.; G. J. Sproul, W. L. T. Weldon, R. A. Murdock, Chatham, N.B.

The Minister of Marine, replying to a question in the House of Commons recently, stated that the question of the encouragement of Canadian shipping would be considered by the Government next session. The question was raised by Dr. Black, M.P. for Hants, N.S., who stated that the coasting trade of the Maritime Provinces was passing into the hands of Norwegians, who came in their own ships, brought their own supplies, and contributed nothing to Canadian trade. Something should be done, he said, to encourage Canadian shipping.

The Crystal Stream Steamship Co. has been incorporated under the New Brunswick Companies' Act, with a capital of $24,000, and offices at Fredericton, N.B., to acquire the str. Crystal Stream, and to carry on a general navigation business on the St. John River and its tributaries. The Crystal Stream was heretofore owned by the People's Line S.S Co. of Rothesay, N.B.; and was built at Bull's Ferry, U.S., in 1873, her dimensions being: length, 132.6 ft.; breadth, 25.6 ft.; depth, 9.3 ft.; tonnage—gross, 482 tons; register, 304. She is a paddle-wheel steamer having engines of 43 n.h.p.

The str. Tricolor, owned by Wm. Williamson, Tonsberg, Norway, and under charter to the Dominion Iron and Steel Co., arrived at Sydney, N.S., from the builder's yard on the Tyne, England, May 27. Her dimensions are: Length, 351 ft.; breadth, 50 ft. 1 in.; gross tonnage, 4,015; net tonnage, 2,600. She has five cargo hatches. During the trip she behaved very well, and averaged 11 knots an hour all the way across on the exceedingly small coal consumption of 22 tons per day. With a coal consumption of 28 tons she averaged 13 knots on her trials. The steamer will be placed in the iron ore trade.

The Canada-Jamaica Steamship Co. has been incorporated under the Dominion Companies' Act, with a capital of $350,000 and offices at Montreal, for the purpose of carrying on the business of shipowners and agents in Canada and elsewhere, and to acquire as a going concern a business now carried on in a similar name. The provisional directors are: H. F. White, G. W. Marsh, Toronto; C. Hart, V. E. Mitchell, S. J. Le Huray, Montreal. G. W. Marsh is the manager of the original company, which secured a contract from the Dominion Government about four years ago, for the establishment of a line of steamships

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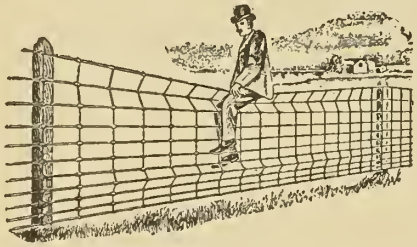

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On one of the trips of the Lady Eileen, between Campbellton, N.B., and Gaspe Basin ports, Capt. Pouliot decided to remain overnight at Dalhousie, owing to threatening weather and his not being acquainted with the channel out of the port. The management of the Interprovincial Navigation Co. of Canada, which owns the steamer, directed him to proceed at once to Campbellton, but he replied by telegram that he would go in the morning or when he thought proper. The company dismissed him, and Capt. Pouliot has obtained a verdict in the court at St. John, N.B., that his refusal to proceed was justified, and has been awarded $1,200 damages for wrongful dismissal.

The Charlottetown Steam Navigation Co.'s new str. Empress left the builders' yard, Newcastle-on-Tyne, England, May 31, and reached Charlottetown June 12, after a very pleasant trip. Capt. Cameron was in command, and a party of Charlottetown people were on board. On the trial trip, a mean speed of 17½ knots an hour was made. The dimensions of the steamer are: length, 235 ft.; breadth, 34 ft.; depth, 13 ft. 10 in. She is of 694 register tons, and has accommodation for 500 passengers. She is propelled by twin screws, driven by triple expansion engines, steam being supplied by two boilers, each 16 ft. 7½ in. by 11 ft. 7½ in. The engines are capable of developing 3,500 h.p. The steamer replaces the Northumberland, on the Summerside-Point du Chene route on Northumberland Strait.

Province of Quebec Marine.

The Toronto str. Ojibway has been sold and towed to Montreal, where she will be practically rebuilt, and will be fitted as a day excursion steamer to run on the Richelieu River.

A. Duford has been appointed wharfinger at Cap à l'Aigle, Que.; J. E. Gamache, wharfinger at L'Islet, Que.; J. Gagnon, wharfinger at Murray Bay, Que.; and A. Gingras, wharfinger at Tadousac, Que., by the Dominion Government.

The ferry str. St. Laurent drifted from her moorings and went on the rocks at Ile Ronde recently. She was towed off by the tug Charlemagne, without damage. The St. Laurent went on her route between Montreal and St. Helen's Island, May 26.

During a heavy gale June 6, five canal boats broke away from the tug Spray (Sincennes-McNaughton line) near St. Croix, Que Four of the boats were wrecked, the fifth, which was coal laden, was picked up by the Spray. A sixth barge, coal laden, did not get adrift.

The str. Aranmore was on June 15 placed by Halliday Bros., Quebec, on a run from Quebec to Halifax, N.S., calling at North Shore points as far as Esquimaux Point, and Sydney, N.S. On the return trip she will proceed through the Strait of Canso, calling at North Shore ports to Quebec, and thence to Montreal. The round trip will take about 11 days.

The Hamilton, Ont., str. Wacondah while passing through No. 2 lock at Black's bridge, on the Lachine Canal, May 31, carried away the upper gates. Serious damage to the vessels in the basin was prevented by the raising of a stop gate in the lock through the suction of the rushing water. The accident delayed navigation in the canal for a little over a day.

By an act passed at the current session of the Dominion Parliament, the Montreal Harbor Commissioners are authorized to appropriate $6,000 towards the erection, under the direction of the Minister of Marine, of a monument to the late Hon. J. Young. The committee having charge of the erection of the memorial has received $1,000 from Lord Strathcona.

The Shipping Federation of Canada has made representations to the Dominion Government that the dry dock at Levis, Que., is too small to give accommodation for the large sized vessels now navigating the St. Lawernce. The Minister of Marine stated in the House of Commons recently that the Government had the matter of the enlargement of this dock under consideration.

The Quebec Harbor Commission has been authorized by an act passed at the current session of the Dominion Parliament, to borrow an additional sum of $150,000 for the purpose of completing the new deep water frontage of the Louise Embankment in the tidal harbor. During the discussion upon the act in the House of Commons it was stated that the Government advances to the commission amounted to $3,748,000. In 1899 there was an unexhausted appropriation of $362,000, which Government is authorized to advance as required; $76,000 had been advanced since 1899, and the act provides for a further advance of $150,000.

The sections of the act of 1894, amending and consolidating the acts relating to the Harbor Commissioners of Montreal, have been repealed, and the commission, as at present constituted, will cease to exist upon the Governor-General issuing a proclamation of the coming into force of an act passed at the current session of the Dominion Parliament. In place of the old commission the act provides for the appointment of three commissioners by the Governor-in-Council, upon the recommendation of the Minister of Marine, to hold office during pleasure. Two of the commissioners shall be a quorum at any meeting; a president is to be appointed from time to time by the Governor-in-Council. The president and other commissioners may be paid, out of the revenues of the harbor, such remuneration for their services as the Governor-in-Council determines.

Ontario and the Great Lakes.

The Ontario Government fishery protection str. Gilphie has been sold to the Goderich Lumber Co. for $1,600.

The Imperial Service Medal has been granted to M. White, lockmaster, Welland Canal; and to J. Black, lock laborer, Williamsburg canal.

The name of the schooner S. and J. Collier, official number 92,643, registered at Bowmanville, Ont., has been changed by order-in-council to The Briton.

The Reid Co.'s tug Salvor, which was sunk at Holland, Lake Michigan, during the winter, has been raised, and returned to Sarnia, Ont., under her own steam, June 3.

P. Wilson, shipbuilder, Meaford, Ont., has been negotiating for a lease of the Owen Sound dock property, with a view of removing his plant to Owen Sound.

A contract for three dump scows of 800 yards capacity each, has been placed by the Dominion Government, to be built on the Georgian Bay. They are to be delivered in the fall.

The steamer formerly known as the City of Owen Sound, has been renamed Erindale, and is running in the excursion trade between Toronto, Whitby and other points on the north shore of Lake Ontario.

J. E. Johnson has been appointed wharfinger of the Dominion wharf at Leamington, Ont.; Capt. J. McAllister, harbor master at Fort William, Ont.; and Capt. J. R. Craigie, harbor master at Goderich, Ont.

The shoal which extends from near the G.T.R. freight sheds at Sarnia, Ont., to below the grain elevator there, is being dredged by the Dominion Government. This will facilitate the movement of vessels at the elevator.

The Algoma Steamship Co.'s schooner, J. J. Barlum, while being towed from Michipicoten to Sault Ste. Marie, Ont., was nearly swamped by heavy seas, and was beached on Whitefish Point, at the end of May, to prevent her from sinking.

The Kingston, Ont., City Council passed a resolution, June 4, asking the Dominion Government to appoint an officer whose duty it should be to inspect steamers and other vessels, and to supervise their equipment and loading, with a view to preventing overloading.

The J. W. Stone Boat Manufacturing Co. has been incorporated under the Ontario Companies' Act, with a capital of $25,000 and offices at Kenora, Ont., for the purpose of building boats of all descriptions. The provisional directors are: J. W. Stone, A. Carmichael and D. L. Mather, all of Kenora.

The Farrar Transportation Co. has decided to place an order at an early date for a second steamer. It was reported at a meeting held at Collingwood, Ont., June 5, that the necessary capital to provide for construction had been secured. The new steamer will be over 500 ft. long, and will have a carrying capacity of 8,000 tons.

The Canadian Lake and Ocean Navigation Co.'s str. Scottish Hero was expected to reach Lake Ontario by the end of June, from the Gulf of St. Lawrence, where she had been engaged in the coal trade. She was cut in two for the trip from Quebec, as she was too large for taking through the canals. On being put together on Lake Erie, the Scottish Hero will engage in the grain and bulk freight trade on the Upper Lakes.

A lake freight steamer was recently launched at Detroit, to which the name Sir Thomas Shaughnessy was given by Miss I. Matthews, of Toronto, daughter of W. D. Matthews, director C.P.R. A. D. McTier, General Fuel Agent, and H. P. Timmerman, General Superintendent C.P.R., Toronto, represented Sir Thomas, who was at the time on board the Empress of Britain, then on her first trip from Liverpool, Eng., to Quebec.

The Northern Navigation Co.'s str. Huronic, which hit some obstruction at the entrance to the Canadian lock at Sault Ste. Marie, May 14, had to go into dry dock at Detroit, Mich., for repairs, a large number of plates having been strained. Repairs were completed May 31, and the steamer resumed her run between Sarnia, Ont., and Duluth, Mich. This is the first accident which the Huronic has met with since she was built in 1902.

The Dominion Government has issued regulations governing the operation of a steam ferry between Port Abino, Ont., and Buffalo, N.Y. It is provided that the ferry steamer shall not be less than 125 ft. keel, 26 ft. beam, and provided with engines of not less than 100 h.p. The ferry is to make three round trips a day from May 25 to Sept. 10, Sundays excepted, between 10 a.m. and 10 p.m.; and the license is to run for 10 years from May 1.

The total tonnage passing through the Canadian and U.S. canals at Sault Ste. Marie during May, was 5,339,278 tons, against 5,775,787 tons in May, 1905, the decrease being entirely accounted for by the longshoremen's strike during the first two weeks of the month. The tonnage going through the canals from the opening of navigation to May 31, was 7,852,545 tons, against 7,075,953 for same period 1905. Of the total freight 6,387,159 was eastbound and 1,465,386 westbound. The passengers eastbound numbered 1,578, and 2,161 westbound.

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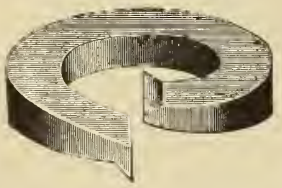

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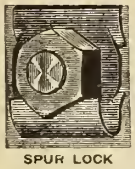

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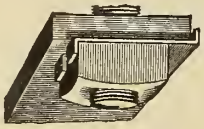

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J. S. Wood, Assistant General Freight Agent, Lehigh Valley Rd., New York City, writes: "THE RAILWAY AND MARINE WORLD is a most interesting paper, and I read it with a great deal of pleasure."

The offence of travelling upon the Government railways without a pass or a ticket has hitherto been punished by the offender being put off the train at any point not more than half a mile from a dwelling house "in sight of the place of removal and accessible therefrom." An order-in-council has now been approved fixing a penalty of $50 for each offence.

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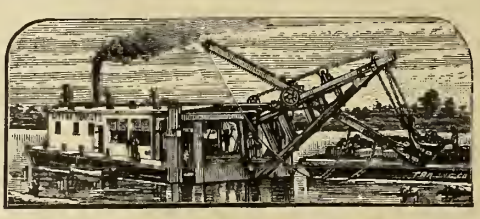

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Sir Thos. G. Shaughnessy recently stated in a speech at Quebec, that when the double-tracking from Winnipeg to Fort William is complete, and when the direct line from Victoria Harbor to Peterborough has been built, the company, in order to complete the chain of communication, will build a fleet of grain carriers to transport the grain on the lakes from Fort William to Victoria Harbor. So far, the company has trusted to outside vessels and chance comers, but when the grain-carrying system is completed the C.P.R. will have to own a fleet of its own.

The screw str. Erin, of St. Catharines, owned by T. Conlon, Thorold, Ont., with a cargo of coal, and also towing the coal laden barge Danforth, upbound, was run into in the St. Clair River, May 31, by the U.S. str. Cowle, and sank, with the loss of five lives. The Cowle, it is claimed, did not stop to give any aid to the other vessels, but this is accounted for by the fact that she was leaking considerably from injuries received, and had to go into Port Huron for shelter and repairs. The Erin is lying in over 50 ft. of water, and is not in any way endangering navigation.

We have been advised that while the Great Lakes and St. Lawrence Transportation Co. has decided to abandon Montreal as its regular port of transhipment, it is not intended to make Buffalo its sole port in the future, so that grain may be shipped out by the U.S. route. When it is more profitable for the company to deliver grain to Buffalo, it will do so, but it is intended to deliver grain at Kingston, Ont., until the conditions at Montreal change. The company's management states that the restrictions at that port and the cost and delay of transferring grain there are so great, that it had to seek other ports.

The wreck of the barge Kent, which has been lying on the bar at Ogdensburg, N.Y., was partially burned June 2, and the remainder has been blown up by dynamite. The Kent was originally the screw steamer East, being one of the four steamers, North, South, East and West, built at Montreal as blockade runners during the U.S. Civil War. The East subsequently traded between Hamilton and Montreal. In 1878 she fouled a towline, and the tug Joe Mark was sunk, and she was subsequently seized to satisfy the claim for damages. She was then converted into a coal barge and continued in that trade until wrecked, about 20 years ago.

The Rockport Navigation Co. has sold its str. Victoria to the Brockville Navigation Co., which will place it on a route between Brockville and Butternut Bay. The Victoria will be replaced on the Brockville-Gananoque run by the Missisquoi, which the Rockport Navigation Co. has purchased at Sorel. The Victoria is a screw steamer, built at Kingston, Ont., 1890, having the following general dimensions: length, 72.6 ft.; breadth, 15.5 ft.; depth, 5 ft. Her engines are of 12 n.h.p., and her tonnage is 58 gross and 40 register. The Missisquoi is a screw steamer, built at Noyan, Que., 1903, her dimensions being: length, 87.3 ft.; breadth, 20.9 ft.; depth, 5.4 ft. Her engines are of seven n.h.p., and her tonnage 160 gross and 107 register.

The Rainy River Navigation Co. has been incorporated under the Ontario Companies' Act, with a capital of $40,000, and offices at Kenora, Ont., for the purpose of taking over the properties which J. T. Horne has acquired from the Rainy River Navigation Co., a company incorporated under the Dominion Act, July 18, 1899. This company has carried on a general navigation business on the Lake of the Woods and adjacent waters, and the Dominion Secretary of State has approved of a change of name to the Kenora Transportation Co. The provisional directors under the charter just granted by the Ontario Government are: G. A. Graham, J. T. Horne, Fort William, Ont.; W. Ross, Kenora, Ont.; J. C. Graham, Winnipeg, Man.; A. R. Bartlett, Windsor, Ont.

The U.S. Congress Committee on Rivers and Canals has reported favorably on the bill for the preservation of Niagara Falls. It provides for regulating the diversion of water from Niagara River or its tributaries in the State of New York under constitutional authority, for protecting the navigability of streams and for national defence. Permits are to be issued by the Secretary for War, and the quantity of electrical power which may, by permits, be allowed to be transmitted from Canada into the U.S. shall be 160,000 h.p. The act is to remain in force for three years, and $50,000 is appropriated for its administration. The bill is based on the work of the joint Commission on International Waterways, which held a number of sittings in Canada and the U.S. during the last twelve months.

Capt. P. M. Campbell, of Collingwood, has secured a verdict in the Admiralty Court at Toronto against the steamboat City of Windsor for $1,400 and costs, for salary while acting as manager of the boat, which was owned in the following proportions: T. Long & Bro. 4-9, estate C. Cameron 4-9, J. K. McLaughlin 1-9, P. M. Campbell, 1-9. When the Northern Navigation Co. obtained judgment against the estate of Jno. Long last winter the City of Windsor was accepted in part payment. Capt. Campbell seized the boat and in order to make delivery of her to the Northern Navigation Co. $1,400 was paid into court.

Manitoba, Saskatchewan, Alberta, Etc.

The Dominion Government has arranged for the dredging of the creek and the construction of a dock at Whytewold, on Lake Winnipeg, Man.

A license has been granted by the Manitoba Government to enable the Millers' National Insurance Co. to transact a fire, lightning, inland marine and general insurance business in the province. I. Pitblado, Winnipeg, has been appointed its attorney.

Navigation on the Athabasca River opened May 25, when a fleet of 18 scows of freight for the Hudson's Bay Co., consigned to Fort McMurray, cleared from Athabasca Landing, Alta. Some of the Hislop & Nagle fleet have also started for the annual trip to Fort Resolution, near the mouth of Mackenzie River.

The masters and chief engineers of the steamers of the Winnipeg, Winnipegosis and Cumberland Steamship Co. for the current year are as follows:

Steamer	Master	Chief Engineer
Cumberland	E. H. Stevenson	H. Carefoot
Hazel C.	J. Bowering	J. Mercer
Highlander	S. Stephenson	Jas. Black
Lady of the Lake	H. Cochrane	J. Seaman
Letta S.	W. B. Sifton	W. Bickle
Wolverine	A. Vance	A. E. Cullis

B.C. and Pacific Coast Marine.

W. Fraser has been appointed harbor master at Ladysmith, B.C.

The survey str. Egeria is engaged in making a survey and in charting the waters adjacent to Prince Rupert harbor, the western terminus of the G.T. Pacific Ry.

The C.P.R. river str. Beaver is undergoing an overhaul at Vancouver, B.C. She will be provided with new guards and the stem plating will be doubled.

The Hudson's Bay Co.'s str. Mount Royal became disabled near Hazelton, B.C., recently, through one of her engines breaking down. The passengers and freight were taken off and sent to Hazleton, and the steamer returned to Victoria for repairs. The Mount Royal was expected to be on her route again early in July.

Steam trawlers are being put in operation in B.C. waters by the Canadian Fishing Co., and the Deep Seas Fishery Co., of Vancouver. The first named purchased the trawler Celestial Empire at Liverpool, Eng., and she reached Vancouver early in June, and the last named has purchased the Flamingo, which is expected out from England in July.

The work which the Dominion Government has had in hand for two years past for the improvement of the North Thompson River, near Kamloops, was completed at the end of May. A protective temporary dam was thrown across the east side so as to divert the water into the western channel while the new channel was cut. The completion of this work gives on the eastern side, at Heffly Riffle, a channel 60 ft. wide, and 10½ ft. deep, with a minimum depth of 4 ft. at low water. Further improvements are required on the river in order to perfect the navigation.

Among the Express Companies.

R. Helme, Route Agent Dominion Express Co., was presented with an address and cabinet of silver on leaving Nelson, B.C., to take up his new duties as Superintendent of the Pacific Division at Vancouver.

The Dominion Parliament has under consideration an act respecting express companies. The act is to apply to any corporation and to any association incorporated or unincorporated, and to any partnership or person now or hereafter carrying on in Canada the business of an express company, or an express business extending beyond the limits of any province, or connecting any province with any other province, and any such undertaking is declared to be an undertaking for the general advantage of Canada. It shall also apply to any foreigner, foreign corporation or foreign association of persons, carrying on an express business, which business shall extend to and into Canada, so far as concerns the express business transacted or to be transacted by him or it in Canada or in any province thereof. It brings the companies under the control of the Railway Commission; makes sections 26 to 50, inclusive, of the Railway Act, 1903, apply; and provides generally for the operation, control and regulation of express companies. The act comes into force immediately on receiving the Governor-General's assent, with the exception of sections relating to tariffs of tolls, which come into operation three months later.

Telegraph and Cable Matters.

The C.P.R. Telegraph Department has closed its offices at Coal Creek, B.C., and Stockton, Man.

The Canadian Northern Telegraph Co. has opened offices at Chipman, Alta., and Oakville, Man., and has closed its offices at Hilton, Myrtle, and Oakland, Man.

J. R. Burns, local manager Western Union Telegraph Co., Sydney, N.S., was presented with a gold emblem pin by his fellow directors of the Sydney Y.M.C.A., on his being transferred recently to Moncton, N.B.

The Newfoundland Government Telegraph Department has opened offices at Badger, Crabbs, Bay St. George, Gaff Top-

sail, Lark Harbor, Bay of Islands, Stephenville, Nfld.

The G.N.W. Telegraph Co. has opened offices at Alliston station, Minden, Newtonville station, Walsingham Centre, Ont.; Bristol, Bromptonville, St. Gregorie, St. Norbert, Whitworth, Que.

The sale of the property in Fanning Island, upon which the British Trans-Pacific cable has its mid-ocean station, has been indefinitely postponed. The postponement was made at the instance of the British Government.

S. B. McMichael of the G.N.W. Telegraph Co., on the occasion of a recent trip of inspection to Winnipeg, stated that it would only be a very short time until direct wires were established between Winnipeg and the large eastern centres by that company.

The DeForest Wireless Telegraph Co. has appealed to the Recorder's Court in Quebec, against an assessment for $1,000 personal tax for its business in Quebec city. The company argues that as it does not use any poles or wires, like the other telegraph companies, it is not liable for the tax.

The C.P.R. Telegraph Department has opened offices at Stettler, Airdrie, Banff, Daysland, Alta; Kingsgate, Three Valley, B.C.; Birnie, Foxwarren, Rosendale, Sinclair, Solsgirth, Man.; Homeville, Scotch Village, N.S.; Cliffe, Cross, Dexter, Margach, Wayland, Ont.; Lochaber, and Maryland, Que.

The annual convention of the Association of Railway Telegraph Superintendents was held at Denver, Colo., June 20 to 23 inclusive, the first two days being devoted to business and the last two to sightseeing. The association met in Montreal in 1895, and a feature of the 1905 meeting at Chattanooga, Tenn., was the paper by W. J. Camp, Electrical Engineer C.P.R. Telegraphs, on High Tension Wires on Railway Rights of Way.

The Great Northwestern Telegraph Co. has not acquired the Canada Atlantic Ry. Telegraph System, as stated in the daily press. When the G.T.R. took over the Canada Atlantic Ry. it also acquired its telegraph system, and is operating it. A contract has been made between the G.N.W.T. Co. and the G.T.R. Co. for an exchange of business. Under this the rate from G.N.W.T. offices in

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Ontario and Quebec to Canada Atlantic telegraph offices, and vice versa, has been reduced from 50c. to 30c. for 10 words.

The Dominion Government has been asked to establish wireless telegraph stations between Atlin, B.C., and Quesnelle, Yukon Territory, about 1,200 miles. This portion of the Yukon telegraph line is subject to frequent interruption during the winter, and is a source of great expense for repairs, etc. The Minister of Public Works has promised to have a report prepared as to the cost. During the financial year ended June 30, 1905, the Yukon lines earned $115,874.04, being $11,117.93 less than in 1903-04, while the expenditures were $206,532.43, of which the net expenditure for the year was $178,083.77; the other $28,448.66 included liabilities brought forward from previous years.

The report of the Department of Public Works for 1904-05 contains the following table showing the extent of telegraph lines in operation in the Dominion:

	Length of Lines Miles	Lengths of Conductors Miles	Offices
Great Northwestern Telegraph Co.	18,286	35,721	1,455
Canadian Pacific Telegraphs	10,294	51,009	1,150
Western Union Telegraph Co.	2,638	9,849	219
Government Telegraph Service	6,590	6,590	337

These figures do not include lines used solely for railway purposes, and no mention is made of the Canadian Northern Telegraph lines.

When it comes to putting the wireless telegraph apparatus in the pocket, says a U.S. exchange, the limit has pretty nearly been reached, but this is to be done according to the plans of officers assigned to the U.S. Bureau of Equipment of the Navy. The apparatus, as suggested, will weigh not more than 2 lbs., and will be capable of accurate service over an arc of 30 miles. The apparatus includes a collapsible balloon of thin rubber or similar material, capable of being inflated into an obloid 3 ft. across its greater diameter. The hydrogen gas will be produced by a patent compact cartridge, which is light of weight and occupies little space. It is estimated that this balloon will support 200 ft. of fine copper wire to act as antennæ. At the ground will be a "detector" not larger than the bowl of a corncob pipe. The sender will be of the same size, and the whole apparatus can be packed in the case of a 4 x 5 in. snapshot camera.

General Telephone Matters.

The Burgessville, Ont., Telephone Co. is extending its wires to several points east of the village.

A local telephone company is being organized at Chilliwack, B. C. It is proposed to construct about 65 miles of line, and to fix the charge for telephones at $1 a month.

The Bell Telephone Company has installed a local exchange at Rosthern, Sask., and has under consideration an extension of its long distance lines into the Saskatchewan Valley.

The House of Commons has decided that the Bell Telephone Co. shall be permitted to increase its capital stock to $30,000,000 instead of $40,000,000, which the company desired.

Residents of Frome, Ont., and district are organizing a company for the construction of a local telephone line, to connect, probably, with the lines of the Southwold and Dunwich Telephone Co.

The New Brunswick Telephone Co. is constructing a new line from Newcastle to Campbellton. It is also reported to have acquired the property and franchises of the Miramichi Telephone Co.

The interests of several of the shareholders of the Saskatchewan Telephone and Electric Supply Co., Saskatoon, Sask., have been sold to out-of-town buyers. One of the shareholders selling was Dr. J. H. C. Richardson, the President.

The Edmonton, Alta., City Council has passed a resolution authorizing an agreement to be drawn up between the city and the Canadian Machine Telephone Co., for the supply and equipment of a telephone system in the city, to be operated by the municipality.

J. L. Richmond, heretofore local manager Bell Telephone Co., London., Ont., has been appointed District Manager of the company, with headquarters at London. He will have charge of the offices in Western Ontario, including the city of London. He is succeeded as local manager by C. H. Beard, heretofore chief clerk at London.

The Erie Telephone Co. has been incorporated under the Ontario Companies' Act with a capital of $10,000 and offices at Selkirk, Ont., for the purpose of carrying on a telephone business. The provisional directors are: G. E. Dashner, A. Yager, S. Culver, E. Hoover, M. Kellam, B. Gee, and F. Held, of Rainham township, Haldimand county, Ont.

The Bell Telephone Co. is considering tenders for the erection of two buildings in Toronto to be used as exchange stations. One of the buildings will be at the corner of Oxford St. and Bellevue Ave., and will be known as College; and the other will be erected on Lee Ave. This will serve a large area in the east of the city and supplant the present Beach exchange, which is too small to handle the business there.

The Ingersoll, Ont., Town Council has granted a franchise for 25 years to the Independent Telephone Co., of Ingersoll, which has been organized. The company agrees to begin work by Jan. 1, 1907, and to have a complete system in working order within 12 months, with at least 300 subscribers on the Ingersoll exchange. The Bell Telephone Co. is operating in the town, and has at present over 300 subscribers on its exchange.

The House of Commons has under consideration a bill respecting Government telephone systems in Manitoba. The bill provides that the Government of Manitoba may purchase or expropriate telephone systems within the Province; that the price may be fixed by agreement or by arbitration under the terms of the Manitoba Expropriation Act; that the Government may delegate to municipalities its powers of purchase and expropriation; and declares the Bell Telephone Co. to be subject to the Legislature of Manitoba.

The Central Telephone Co. of New Brunswick, Fredericton, has been authorized by the Provincial Government to increase its capital from $209,000 to $1,000,000 for the purpose of extending its lines throughout the province. The company is making some extensive additions to its lines on the North shore, the principal one being a line, now under construction, from Newcastle to Bathurst, N.B., where it will connect with its Campbellton wire. The directors are considering an exchange of 1,500 instruments at a rate of about $20. H. P. Robinson is the manager of the company.

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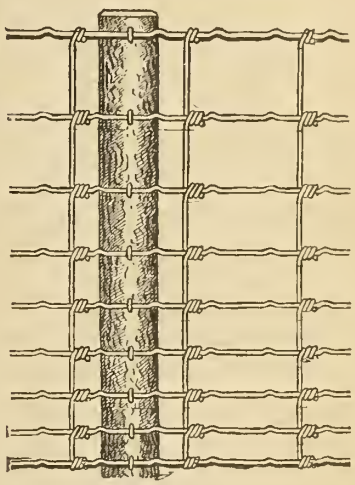

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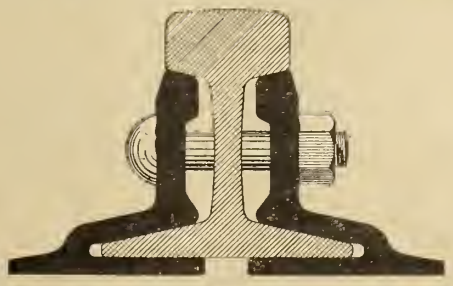

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The Amaranth Telephone Co-operative Association operates in Dufferin county, Ont., and has been granted permission to carry its lines across the C.P.R. near Grand Valley station. The terms and conditions upon which this may be done are fully set forth in the order. It is provided that where the lines are strung across the railway tracks the stretch must consist of copper wire of not less than no. 13, new British standard gauge, .091 in. in diameter; that the lowest wire is to be not less than 25 ft. from the top of rail, and not less than 5 ft. above the telegraph wires; the crossing wires to be supported by double cross arms attached to the poles on each side of the crossings, wires to be tied to two insulators on each side; span at crossings to be not more than 140 ft.

Upon consideration of the Bell Telephone Co.'s bill for an increase of capital and other powers, it was stated on behalf of the Government that under the general legislation introduced this session the Government had provided for the control of telephone rates, the interchange of business and connection between the companies. The Government recognized that the municipalities must have some control over their streets. They had created the Railway Commission with large powers, which were being extended this year as just stated. "I am authorized to go one step further," the Minister of Justice, since appointed Chief Justice of the Supreme Court, went on, "and to provide that in so far as the municipalities are concerned we shall deal with the companies in this way: That the systems already in existence, the lines, poles, and so forth, will continue as they are to-day. If the municipality desires to make any change in the system as it is in existence, as it has been created under the authority of Parliament, then the municipality will have the right to go to the Railway Commission if they cannot agree, and the commission will settle the dispute. With respect to the future, if a company desires to extend its system, to put down new poles, to extend its system in cities, towns, and villages, if the company cannot agree with the municipality, it shall go to the Railway Commission and ask for authority to put down its poles in the way it requires, and if the municipality wishes to make a change it must apply to the Railway Commission for the change."

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Canadian Ry. Accident Ins. Co.....Ottawa, Ont

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Canadian Westinghouse Co.....Hamilton, Ont.

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Montreal Rolling Mills Co.....Montreal.

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Montreal Steel Works.....Montreal.

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Jas. W. Pyke & Co.....Montreal.
Rhodes, Curry & Co.....Amherst, N.S.

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Hamilton Bridge Works.....Hamilton, Ont.

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Chicago Railway Equipment Co.....Chicago, Ill.

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The Canadian Rubber Co. of Montreal.

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The Hudson's Bay Co.....

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Mica Boiler Covering Co.....Montreal.

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Hall Engineering Works.....Montreal.
Polson Iron Works.....Toronto.
Robb Engineering Co.....Amherst N.S.

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Robb Engineering Co.....Amherst, N.S.

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Canada Foundry Co.....Toronto.
H. W. Petrie.....Toronto.
Robb Engineering Co.....Amherst, N.S.

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Babcock & Wilcox (Ltd.).....Montreal.
Canada Foundry Co.....Toronto.
H. W. Petrie.....Toronto
Robb Engineering Co.....Amherst, N.S.

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Babcock & Wilcox (Ltd.).....Montreal.
H. W. Petrie.....Toronto.
Robb Engineering Co.....Amherst, N.S.

Boilers, Water Tube
Babcock & Wilcox (Ltd.).....Montreal.
Robb Engineering Co.....Amherst, N.S.

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Toronto Bolt and Forging Co.....Toronto.

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N. J. Holden Co.....Montreal.

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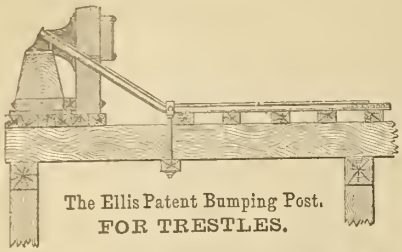
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NIAGARA NAVIGATION COMPANY.

NOTICE is hereby given that an interim dividend of four per cent. (being at the rate of eight per cent. for the year) has been declared upon the Capital Stock of this Company, and the same will be payable the 2nd of July, 1906.

The Transfer Books will be closed from the 17th June to 30th June, 1906, both days inclusive.

By order of the Board.

E. B. OSLER, President.

Toronto, June 13th, 1906.

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Ontario Wind Engine and Pump Co. .... Toronto.

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The N. L. Piper Railway Supply Co.....Toronto.
Pipe and Pipe Coverings
Wm. C. Baker Heating & Supply Co...New York.
Pipe Covering
Canadian Fairbanks Co.....Montreal.
Mica Boiler Covering Co.....Montreal.
Pipe Stocks
Butterfield & Co.....Rock Island, Que.
Piston Rods
B. M. Jones & Co., Inc....Boston and New York
Planers
The John Bertram Sons Co.....Dundas, Ont.
H. W. Petrie.....Toronto.
Ploughs, Contractors'
W. H. C. Mussen & Co.....Montreal.
Toronto Pressed Steel Co.....Toronto.
Pneumatic Tools
N. J. Holden Co.....Montreal.
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E. L. Drewry.....Winnipeg.
Portable Boilers
Babcock & Wilcox (Ltd.).....Montreal.
Canada Foundry Co.....Toronto.
Robb Engineering Co.....Amherst, N.S.
Power Houses
Steel Concrete Co, (Ltd.).....Montreal.
Printing
The Hunter, Rose Co.....Toronto.
The Mail Job Printing Company.....Toronto.
Propeller Wheels
W Kennedy & Sons (Ltd.).....Owen Sound, Ont.
Sheriffs Manufacturing Co..... Milwaukee, Wis.
Pumps
Canadian Fairbanks Co.....Montreal.
Canada Foundry Co.....Toronto.
Goold, Shapley & Muir Co.....Brantford, Ont.
James Smart Mfg. Co.....Brockville, Ont.
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M. Beatty & Sons.....Welland, Ont.
Punching and Shearing Machines
The John Bertram Sons Co.....Dundas. Ont.
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F. H. Hopkins & Co.....Montreal.
Montreal Steel Works.....Montreal.
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Dominion Iron & Steel Co.....Sydney, N.S.
Drummond, McCall & Co.....Montreal
F. H. Hopkins & Co.....Montreal.
J. J. Gartshore.....Toronto.
Rails (for relaying)
F. H. Hopkins & Co.....Montreal.
J. J. Gartshore.....Toronto.
T. A. Morrison & Co.....Montreal.
W. H. C. Mussen & Co.....Montreal.
Jas. W. Pyke & Co.....Montreal.
Railway Bridges
Hamilton Bridge Works.....Hamilton, Ont.
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General Railway Signal Co .....Buffalo, N.Y.
Rail Joints
Continuous Rail Joint Co. of Canada....Montreal.
N. J. Holden Co. .....Montreal

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Crossen Car Mfg. Co.....Cobourg Ont
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The Canadian Rubber Co. of Montreal
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Cyclopean Iron Works Co.....Jersey City, N.J.
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Butterfield & Co.....Rock Island, Que.
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The N. L. Piper Railway Supply Co.....Toronto.
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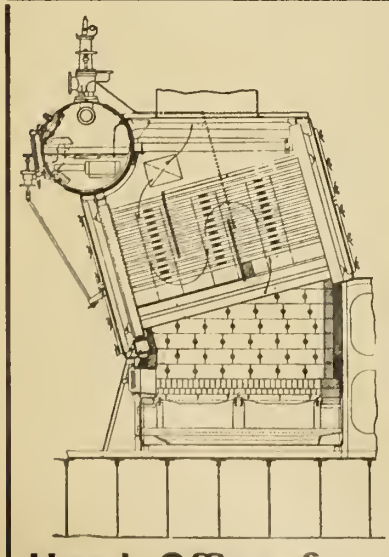

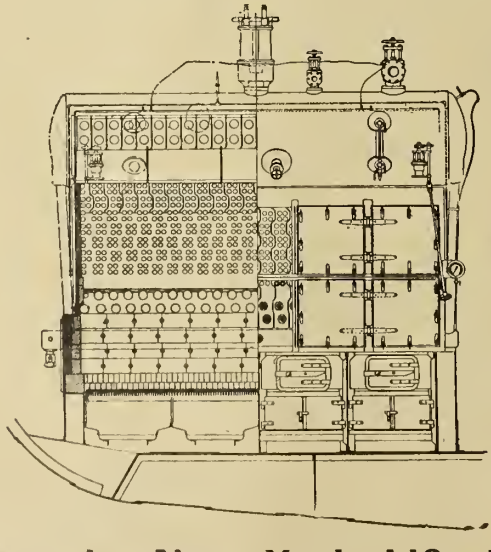

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See Purchasing Agents' Guide on page 497

See Alphabetical Index to Advertisements on page 469.

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Old Series, No. 184.
New Series, No. 102.

TORONTO, CANADA, AUG., 1906.

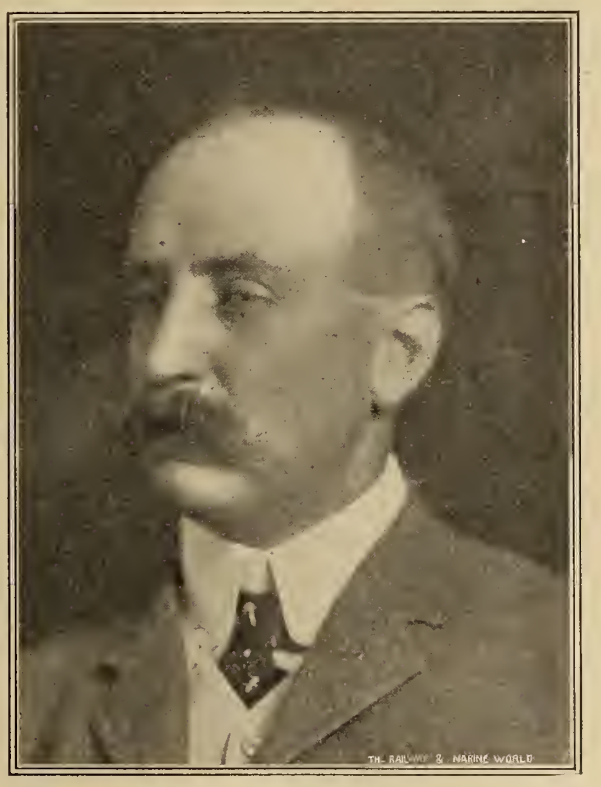
Subscription, $1 a Year.
Toronto Postal Delivery, $1.25 a Year.

C.P.R. Steam Motor Car.

Illustrations of the steam motor car which the C.P.R. is operating between Montreal and Vaudreuil, Que., are given on page 439. Four round trips are made per day. The car is 75 ft. long and is divided into engine-room, baggage and express compartments, smoking compartment seating 16 and first-class compartment seating 40.

The boiler is of the return tube type, being 4½ ft. inside diameter x 7 ft. 11 ins. between flue sheets and contains one 33 in. corrugated furnace and 95 1¾ in. tubes, and has a total heating surface of 536 sq. ft., of which 485 are in the tubes and 61 in the furnace. The superheater consists of 31 1¼ in. steel tubes and contains 62 sq. ft. of superheating surface. Pistons are of cast iron 10 ins. in diameter by 3 ins. thick. Cylinders, 10 x 35 ins., have inside admission piston valves which are operated by valve gear. Driving and trailing wheels have centres made of cast steel, the former being 42 ins. on tread, the latter 34 ins. on tread. All journals under motor are 8 x 12 ins. and under truck of car 5 x 9 ins. Main frames of motor are made of ⅞ in. steel plate. The total weight of car in running order is 136,620 lbs., of which 82,880 are at the motor end of car and 53,740 at the rear end of car, the portion at the motor end being divided—42,440 lbs. resting upon the driving wheels and 40,440 on the trailing wheels. The fuel used is crude oil and is carried in a tank having a capacity of 2,000 lbs., which is built in frame of motor and is being under a constant air pressure of 15 lbs. per sq. inch. The oil is fed to furnace by a slot burner and the supply cock and blower are controlled by an automatic device. The car is provided with water tanks having a total capacity of 900 imperial gallons, these being fastened to the underside of car body, and the water is fed to boiler by 1 no. 3 and 1 no. 5 injector. The steam working pressure is 180 lbs. and it is superheated so that upon reaching the valve chest it has a temperature of from 700 to 760 degrees F. The corrugated flue in boiler is lined with firebrick and the boiler is also equipped with sand blowing device for cleaning soot off the tubes. The car is equipped with Westinghouse Co.'s A. M. T. automatic system, which has a graduated release and is especially adapted for this class of service.

In speaking at the master mechanics' convention at Atlantic City, N.J., recently, H. H. Vaughan, Assistant to the Vice-President, C.P.R., said: A discussion on the relative cost of operation by steam and electricity is not a very profitable one at present. We can reason out what it is going to be, and arrive at any conclusion you want to, almost, by accepting different premises. I was asked to get up a motor car last year, experimentally, for branch line service, to be operated by two men. A car that is operated by two men is impracticable, except on branch lines, where you are absolutely sure that only one car will be permitted on the branch line at a time. A third man is absolutely necessary for flagging, and now as the difference in cost between firemen and brakemen is very small, you might as well have a fireman on the car as a brakeman. However, as the result of the demand for a car to be operated by two men, we sent out a steam car operated with oil as fuel. We have had that car in service about a month now.



H. H. VAUGHAN,
Assistant to the Vice-President, Canadian Pacific Railway.

The car with the motor equipment weighs from 90,000 to 92,000 lbs.; it is a four-wheeled truck car. The water carried adds 9,000 lbs. to that, and the motor 30,000 lbs., making the total weight of the car about 130,000 lbs. Our boiler is the modified Scotch boiler, with a superheater and combustion chamber, or intermediate chamber, and circular furnace. One interesting feature is that we have found that on this small car with about a 200 h.p. engine the results obtained in locomotive practice on large boilers and large engines can be duplicated in every respect. The inches of draft per pound of back pressure are duplicated. The evaporation per square foot of heating surface is duplicated. The horsepower the car will develop is practically the same; the weight of the boiler per square foot of heating surface is rather less than in the ordinary locomotive. So we really have a reduced locomotive in every way running on that car, and our experience shows that it is perfectly safe to apply existing locomotive data to very small cars of that kind and expect the results to be duplicated. The master mechanics' improved form of stack cannot be duplicated, however. The stack has to be a little larger than the formula gives. I suppose that is because the size of the front end would be 24 ins., and there is not enough room for the gases in the size the formula gives.

After a certain amount of experimenting we put the car in service, and the only troubles we have had are: The first trip the car broke a spring-hanger and the second time a cross-head arm actuating the valve gear. This was due to defective design, but otherwise the car runs satisfactorily. We are making four round trips a day, 23 miles each way. Our regular local passenger schedule, 23 miles, is 50 minutes. We have made it in 38 minutes with the motor car. There is no difficulty in running at a speed of 50 to 55 miles to the hour.

I am practically sure, however, that we will not go to oil fuel again. We will keep to coal. Coal fuel with us is the cheapest, for the amount of heat it develops. The motor car proposition is one of getting down to the cheapest fuel and making everything as cheap as you can to reduce the cost per mile. Where oil is cheaper and coal more expensive, of course the conditions will be reversed. We have automatic attachments on the car by which, when the engineer shuts off the throttle, he at the same time shuts off a portion of the oil, so that he regulates the supply and it does not form a very large amount of smoke. He has the lever in front of him and he turns on more or less oil, and with proper draft it is possible to maintain the steam pressure satisfactorily. The cost of operation is somewhere between 15 and 20c. per mile. It depends largely on the engineers and firemen. In many ways the motor car is attractive to the public. If we were to put on a very small, old type engine, and old car, we could probably run a cheaper service than we can with the motor service, but the motor car is more attractive. It runs quickly, and with a nicely furnished modern car it gives an attractive branch-like service.

The question is whether it will pay to put the motor in the car or use a separate motor

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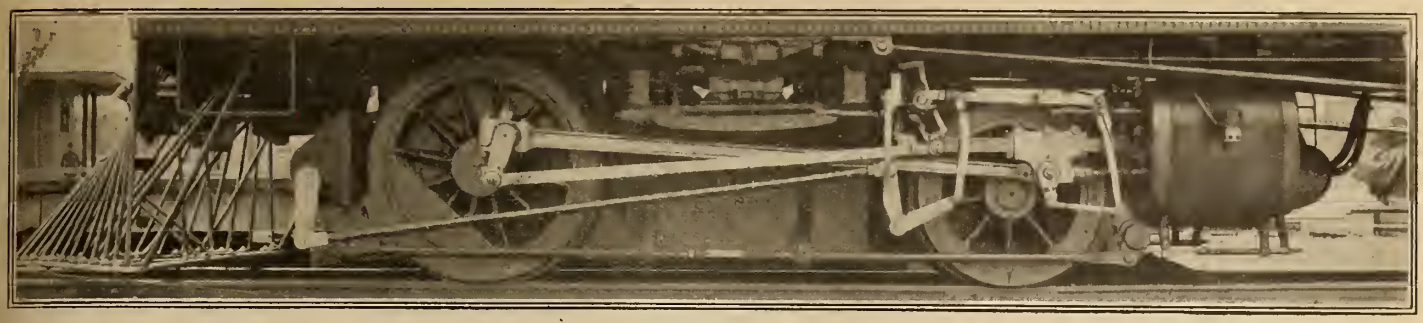
PRESIDENT.



FRONT TRUCK ON C.P.R. STEAM MOTOR CAR.

car. I think a separate motor car will probably be designed, attractive in appearance, to enable us to put the motor car in the roundhouse at night and the trail car in the yard. That is one of the objections of the combined car. Another objection is the difficulty of washing out; a small boiler, such as is used, has to be washed out properly, just as a big boiler. One of the advantages about the steam car is the fact that you can put that car on a branch line and have no difficulty with men trained as engineers. The roundhouse force is accustomed to it, and there is nothing about the car that involves a new proposition or a new force, and the fuel is, of course, very cheap. With a car weighing 60 tons the oil consumption is 1.8 gallons per car-mile.

Historical Notes, Canadian Northern Ry.

In 1895 the charter was acquired of the Lake Manitoba Ry. and Canal Co., and in the following year was commenced the construction of a railway from Gladstone, 100 miles were completed by the autumn of 1896, and at once put into operation.

In 1897 the operation of the line was extended 25 miles to Lake Winnipegosis.

In 1898, under the charter of the Manitoba and South-Eastern Ry. Co., a commencement was made on the grain carrying trunk line from Winnipeg towards Lake Superior, on which 45 miles of track were laid. At the Lake Superior end the Port Arthur, Duluth and Western Ry. Co.'s charter was purchased and the rights of the Ontario and Rainy River Ry. Co. acquired, and work commenced from 19 miles from Port Arthur on the former line, under the charter of the O. and R.R. Ry.

In 1899 the northern line was extended to 195 miles from Gladstone, Man. This extension was built under the charter rights of the Winnipeg Great Northern Ry., and it was in this year that this line and the L.M.R. and C. Co., were amalgamated under the name of The Canadian Northern Ry. Co. The other companies were absorbed at later dates. Before the close of the year the gap between the rails on the Lake Superior line had been considerably lessened.

In 1900, the Manitoba and South-Eastern Ry. was completed to Rainy River, Ont., where the construction of a large swing steel bridge had to be undertaken. From Dauphin, Man., westerly, the company built 25 miles through the Gilbert Plains and pushed the north line through the northwest corner of Manitoba to some 20 miles west of the provincial boundary.

1901 was remarkable in the annals of the company. Firstly, as the year in which it took over from the Manitoba Government the railway lines of the Northern Pacific and Manitoba Ry. This step secured for the C.N.R. a main line through the fertile Portage Plains to within 19 miles of Gladstone, where the north line of the C.N.R. had been commenced, which link was completed within the year. Branch lines to Brandon and Hartney through unexcelled grain areas, and a connection to the south from Winnipeg to St. Paul and Minneapolis, were also obtained by this acquisition, making an addition to the company's operative mileage of 350 miles. In addition to this mileage, a valuable terminal in the heart of Winnipeg was obtained, which by its proximity to the large tract of terminal property which had already been acquired for the C.N.R. became of much greater value. Secondly, the year was notable as that in which was completed the line between Winnipeg and the Great Lakes port, Port Arthur. The section from Fort Frances to Port Arthur was not taken over by the operating department until early in 1902. But with a total mileage constructed at the end of 1901 of over 1,200 miles, the C.N.R. had sprung into fourth place among Canadian railways.

In 1902 the railway carried over 12,000,000 bushels of grain to the lake front over its new line. The mileage added during this year, besides the section of main line referred to in the preceding paragraph, was made up of main line from Beaver to Gladstone, 19 miles; Stanley to Gunflint, 70 miles; 33 miles on the Neepawa branch; 44 miles on the Carman branch.

In 1903 the following additions were made; Neepawa to McCreary Jct., 41 miles; Vassar cut off, 12 miles; Rossburn branch, 20 miles; Carman branch, 20 miles.

In 1904 the operation of the main line was extended to Kamsack, Sask., 71.3 miles. Much additional grading was done and more track laid on the main line but not taken over for operation until early in 1905. The northern branch was extended to Melfort, Sack., 107 miles west of Erwood; and the Oak Point branch of 34 miles was also turned over to the operating department before the close of the year.

1905 witnessed the completion of the track-laying of the main line to Edmonton, Alta., from Kamsack, 546 miles. Branch lines were also added in Manitoba as follows: Arizona Jct. to Brandon, 77 miles; Greenway to Adelpha, 51 miles; Clan William to Rossburn, 58 miles; Brandon Jct. to Carberry Jct., 22 miles; Hartney to Virden, 37 miles; also a line to connect the Carman branch with the Hartney branch, 15 miles.

1906 has already been marked by the entrance of the line to Prince Albert, the objective point of the northern line. This added 16 miles to this branch.

The above mileage mentioned in particular makes up the present system of the Canadian Northern Ry. west of Lake Superior, and the mileage now owned, operated or leased is somewhat over 2,400 miles.

Though at present the C.N.R. has no rail connection east of Port Arthur, independent of the C.P.R., plans have been made to build from the present eastern lake terminal around the north shore of lake Superior to Sudbury. The James Bay Ry., now under construction from Toronto to Sudbury, 265 miles, is a kindred interest to the Canadian Northern. The James Bay Ry. will be opened for traffic at an early date from Toronto to Parry Sound, 150 miles. This line passes through the Muskoka Lakes district, and will give to many summer resorts in that locality a service not hitherto possible. The

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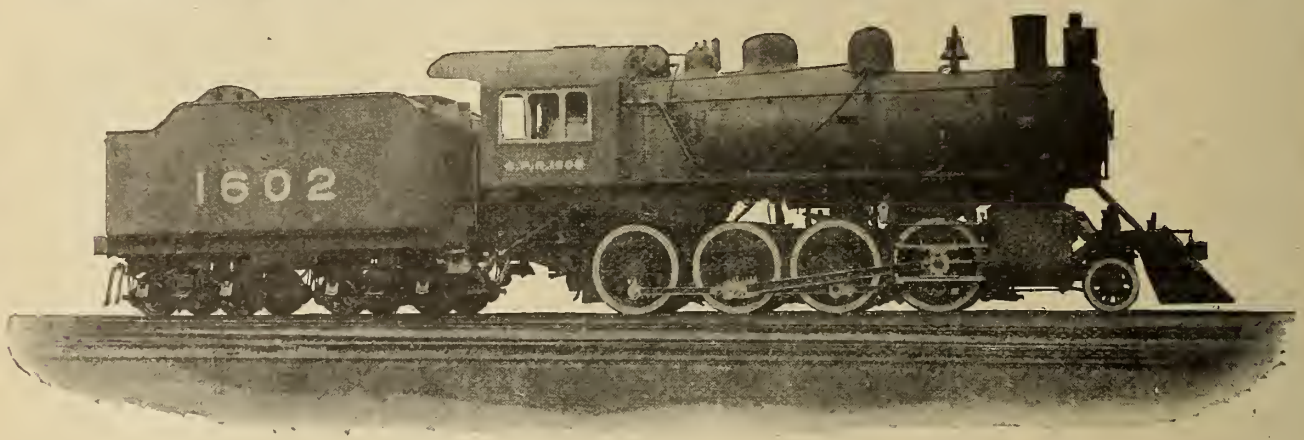

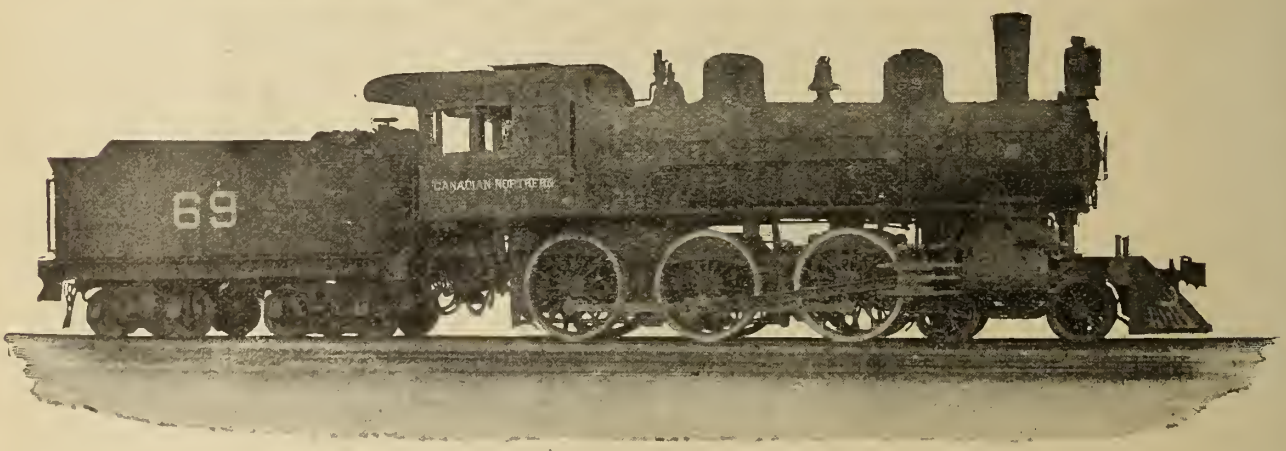

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section from Parry Sound to Sudbury will be ready for operation in 1907. The James Bay Ry. has authority to build from the Toronto-Sudbury line, near the French River, to Ottawa, also from Toronto to Ottawa. A link of 50 miles from Ottawa to Hawkesbury will put these lines, when built, in connection with Montreal and Quebec by means of the Great Northern Ry. of Canada. A controlling interest in the latter railway, which now operates 250 miles, was acquired in 1903. An entrance to Montreal was at once arranged by the acquisition of the Chateauguay and Northern Ry. An independent access to the valuable terminal property held by the Great Northern at Quebec was also decided upon, which work is now under way. At present the company's trains enter Quebec over the Quebec and Lake St. John Ry. There is now being built at Quebec a bridge across the St. Lawrence River, which will have the largest single cantilever span in the world. The charter of the Quebec, New Brunswick and Nova Scotia Ry., in conjunction with the use of this bridge, will permit a through connection being made to Nova Scotia, where the same interests already control the Halifax and South-Western Ry. Co., formed in 1901, which took over in 1903 the Central Railway from Lunenburg to Middleton. Extensions were at that time undertaken and the mileage further increased by the purchase of the Coast Railway, from Yarmouth to Barrington Passage, 50 miles. Between the latter point and Liverpool a connecting line is nearly completed; a branch is also under construction from Middleton to Victoria Beach. These additions will make a total of 370 miles. In Cape Breton the Inverness Railway and Coal Company operates 61 miles from Port Tupper to Inverness, where valuable bituminous coal deposits are being mined.

With the connection of all these railways a vast system will have been built up. Another great transcontinental route will have been formed. Quietly but swiftly each self-supporting link will be added to the chain until the Atlantic is bound to the Pacific by another band of steel.

Master Car Builders' Convention.

The 40th annual convention of the Master Car Builders' Association was held at Atlantic City, N.J., June 13, 14 and 15. The attendance was large and the interest manifested in the proceedings was equal to that of any previous year. The President, J. E. Buker, Illinois Central Rd., in his address stated that the membership had jurisdiction over 2,047,327 freight cars, valued at approximately $1,037,341,800, which compose the vehicles which move 1,277,771,573 tons of freight, producing a revenue of $1,374,102,275, and 41,981 passenger cars, valued at approximately $251,886,000, handling 716,244,858 passengers, producing a revenue of approximately $456,343,380 and operating over 293,937.42 miles of railway—this not including cars owned by individuals or private companies; the value of such freight cars was on June 30, 1904, $72,000,000, and of cars operated by the Pullman Company $51,000,000, or a total of $123,000,000, making a grand total of $1,412,227,800, approximate valuation of passenger and freight cars.

The report of the secretary showed a total membership of 631; while the Treasurer's report showed a balance in hand of $5,104.

It was decided to admit to active membership assistant master car builders, and to amend the article relating to life members so as to permit active or representative members who have been in good standing for 20 years to become life members on recommendation of the Executive Committee.

A resolution was submitted by the Executive Committee in connection with the proposal of the Ohio Legislature to compel railways to equip all cars used on railways in the state, with secure grabirons or handholds on the sides. The resolution set forth: "That the enforcement of such legislation will be subversive of the work of the M.C.B. Association, destructive of the uniformity which alone has enabled the traffic of the country to be handled from one end to the other regardless of the ownership of the cars, and, therefore, the association earnestly protests against the enactment or enforcement of legislation by any state which is calculated to destroy the uniformity of equipment so necessary to safety and the expeditious interchange of cars." W. E. Fowler, C.P.R, on behalf of the Executive explained that while the objections to the proposed legislation had been discussed in detail by the committee, it was thought the resolution would be more effective with all details omitted; and that the resolution as presented will, if it is brought to the attention of the various state legislatures, impress upon them the inability of men not experienced in railway devices to pass suitable legislation covering them, and they ought to be satisfied to leave the matter in the hands of the persons to whom it belongs—the railway companies and the Interstate Commerce Commission. The resolution was adopted.

E. A. Moseley, Secretary of the Interstate Commerce Commission, gave an address upon the use of safety appliances, and prefaced it by stating that the Commission desired to see no legislation which would conflict with the views and rules of the master car builders, and that he would be glad to see any state pass a law that the rules and regulations of the M.C.B. Association should be law until such time as it in its wisdom sees fit to change them.

The report of the committee on standards and recommended practice was presented. The principal feature in this was a recommendation in connection with cast iron wheels. The matter had been discussed with a committee appointed by the American Ry. Association, of which W. E. Fowler, C.P.R., was a member, and a decision arrived at, subject to the approval of the M.C.B. Association, to recommend the American Ry. Association, at its October meeting, to approve of an increase of ⅛ in. on the flange and a change in the taper from 1 in 25 to 1 in 20. This matter was the subject of considerable discussion. W. E. Fowler, in his contribution to the debate, said: "The very thing that members advocated being done had already been done. We have been in conference with members of the American Railway Association and the Maintenance of Way Association, and the thing has been considered from the engineering and maintenance of way standpoint. The matter of the increase in the radius of the throat of the flange was gone into carefully. The statement was made in the committee, and some engineers claim, that the radical increase of the radius in the throat the flange would result in more frequent derailment, and on that account we thought it better to be extremely moderate in recommending any increase in that radius. With regard to the coning of the tread, that also had its consideration, and we want to say that the members of the Maintenance of Way Association and the American Railway Association so far agree with us that they expect to take up in committee and in their associations the advisability of tilting the rail-head so that the rail will take the additional coning of the tread. That, I believe, is standard practice on the continent of Europe and in England now, and it did not seem to be inadvisable to the members of the committee present." It was finally agreed to submit the recommendation of the committee to letter ballot as recommended practice.

One of the best and most valuable reports which has been presented to the association in years was that of the committee on brake beams. The condition of brake beams generally has been notoriously bad. Many of the beams in use are weak, and their maintenance has been sadly neglected. The committee began at the bottom and went into an exhaustive investigation of the causes of failure, the necessary requirements of service and the actual strength of many of the beams now in use. After explaining the weak points of the present brake beams, the committee made a number of recommendations, which, if followed out, will do much to improve the deplorable conditions which apparently exist on many roads. The report includes full details of all of the tests made, and compares the various brake beams submitted in their order of merit as regards meeting certain requirements as to strength, deflection, weight, etc.

The report of the committee on air brake hose specifications was almost as complete as that of the committee on brake beams, and brought out strongly a condition of affairs which should be discouraged. The M.C.B. Association has adopted as standard certain specifications for air brake hose. The test made at Purdue show that 78% of the total number of hose tested passed the M.C.B. specifications for bursting test, but that only 32% of the total number of hose tested passed the M.C.B. specifications for the friction test, and but 4% passed the stretching test. All hose used on cars in interchange must be labelled M.C.B. standard, and that label presumably indicates that such hose has been tested according to the specifications, and, having passed the test, been accepted.

The report of the committee on brake shoes discloses a point which should be given more than passing attention. The present specifications for brake shoes provide for a minimum coefficient of friction, but they do not fix a maximum . The minimum requirement is 20, and while only two of the 15 shoes tested fell below this requirement, two at least of the shoes exceeded it by 75% or more. A high coefficient of friction is desirable in a brake shoe, but in stopping a train it is necessary for safety and convenience to have some uniformity in the braking effect under each car. Triple valves, cylinder travel, brake leverage, etc., are carefully adjusted to give uniform action throughout a train. With equal pressure on the brake shoes, the retarding effect varies directly as the coefficient of friction. If the coefficient of friction on one car equipped with one kind of brake shoe is 37, and the coefficient of friction on the next adjoining car equipped with a different type of brake shoe is 20 (the standard required), the first car will be retarded with almost double the amount of force that the second car has acting upon it, and if these conditions are interspersed throughout a train, the surging due to braking may become very severe.

The reports of other committees were also received, discussed and passed. During the meetings there were a number of topical discussions. G. L. Fowler, dealing with "Circumferential Variation Allowances in Mating Wheels"; L. G. Parish, "Piece Work on Freight Car Repairs"; E. F. Chaffee, "Should not the uncoupling chains of passenger equipment be so arranged as to guard against the uncoupling of cars in transit by passengers who may be on the platforms"? F. H. Stark, "Advisability of splicing centre sills on cars of 50,000 lbs. or less capacity, in order to perpetuate the cars for two or three years longer; with the least possible expense." F. W. Brazier, "Better fitting up of couplers even to the point of machining, or at least drilling the pivot pin hole through coupler

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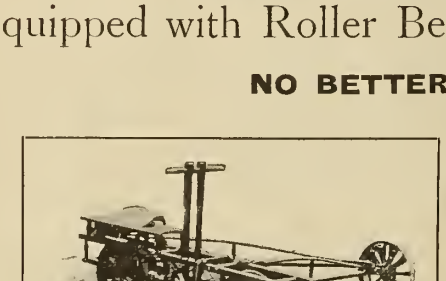

Genuine Barrett Track Jacks - Railbenders - Wrecking Lights—
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Forks—Hooks—Track Chisels—Picks—Mattocks—
Shovels—Switch Ropes, Etc., Etc., Etc.

F. H. Hopkins & Co.

Successors late Jas. Cooper

Imperial Bank Chambers, **MONTREAL**

lugs and knuckle, with knuckle in place and tail of knuckle forced against lock and proper contour preserved under this condition," and one on "Desirability of adjusting brake pressure to light and loaded trains."

The following officers were elected for the current year: President, W. E. Fowler, C.P.R.; Vice-President, G. N. Dow, Lake Shore and Michigan Southern Rd.; Second Vice-President, R. F. McKenna, Delaware, Lackawanna and Western Rd.; Third Vice-President, R. W. Burnett, Erie Rd.; Treasurer, J. Kirby. To fill the vacancies on the Executive Committee occurring this year, J. F. Walsh, F. N. Hibbits, F. T. Hyndman.

Dominion Railway Subsidies.

At the recent session of the Dominion Parliament subsidies were voted in aid of the construction of a number of railways. A number of these were revotes, the subsidies previously voted not having been taken up. The minimum amount voted is $3,200 a mile, but there are the usual provisions for an increase, where the cost of construction exceeds a certain figure, which may bring the total amount of the subsidy to $6,400 a mile.

ALBERTA.

Western Alberta Ry.—From the International boundary northwesterly towards Anthracite, 50 miles.

BRITISH COLUMBIA.

Kettle River Valley Ry.—From Grand Forks up the north fork of the Kettle River, 50 miles.

Kootenay Central Ry.—From Golden to International boundary, via Windermere and Fort Steele, crossing the Crow's Nest Ry. near Elko, 186 miles.

Wellington to Union Bay, 55 miles.

MANITOBA.

Teulon to Icelandic River, 35 miles.

NEW BRUNSWICK.

Shediac and Coast Ry.—From Shediac to Shemogue and towards Cape Tormentine, 38 miles.

Truro northerly to Brule, 34 miles.

NOVA SCOTIA.

Debert on the I.C.R., to Debert coal mines, 4½ miles.

Halifax to Guysboro; and from New Glasgow to Country Harbor, 236 miles.

St. Rose to Orangedale on the I.C.R., 34 miles; and from Mines Road station to Canton Cove, 4 miles; total 38 miles.

Wolfville to Government pier, Basin of Mines, 1 mile.

ONTARIO.

Algoma Central and Hudson Bay Ry.—To a point on the C.P.R. between White River and Dalton, 200 miles.

Brockville, Westport and Sault Ste. Marie Ry.—Balance unpaid of former subsidies, $86,800.

Kingston, Smith's Falls and Ottawa Ry.—From Kingston to Ottawa, 161 miles.

Lake Superior, Long Lake and Albany River Ry.—From Peninsula Harbor northwards, 10 miles.

Manitoulin and North Shore Ry.—From Little Current to Sudbury, including a bridge between Little Current and the mainland, 64 miles.

Nepigon Ry.—From Nepigon station on the C.P.R. to Nepigon Lake, 30 miles; from Nepigon Bay to Lake Helen, 3½ miles; from Nepigon River at Fraser River crossing to Lake Jesse, via Cameron's Falls, 1½ miles; from the north shore of Lake Nepigon northerly 45 miles; total 80 miles.

Ontario Northern and Temagami Ry.—From Sturgeon Falls northwesterly, 50 miles.

Toronto, Lindsay and Pembroke Ry.—From Golden Lake to Bancroft, 51 miles.

Owen Sound to Meaford, 30 miles.

Sharbot Lake or Bathurst, via Lanark Village, to Carleton Place, 41 miles.

QUEBEC.

Atlantic, Quebec and Western Ry.—From Gaspe to Causapscal on the I.C.R., and from Causapscal to Edmundston, N.B., 260 miles; also from Paspebiac to Gaspe, 102 miles; total 362 miles.

Great Northern Ry.—From Arundel to a point in Preston and Hartwell tps., 30 miles; from St. Jerome to a connection with the Montford and Gatineau Ry., 22 miles; from Garneau Jct. to the Quebec Bridge, 70 miles; total 104 miles.

Lotbiniere and Megantic Ry.—From Lyster to Lime Ridge, tp. of Dudeswell, 50 miles. From a point between Lyster and Lime Ridge to the Quebec Bridge, 30 miles; total 80 miles.

Interprovincial and James Bay Ry.—From Lake Temiskaming station northerly, 50 miles.

Ottawa Northern and Western Ry.—From Aylmer to the Interprovincial Bridge, Ottawa, 9 miles.

Quebec and Lake St. John Ry.—From Roberval to Lake St. John wharf, 1 mile.

Quebec Central Ry.—From St. Francis to St. George, 9 miles, and from Scott Junction to the Quebec Bridge, 23 miles; total 32 miles.

Cape Tourmente to Murray Bay, 20 miles.

Jonquieres to Ha-Ha Bay, 20 miles.

Lac Bouchette on the Quebec and Lake St. John Ry., to St. Andrews, 13 miles.

Lake Nominingue to Lievre, 35 miles.

La Tuque on the St. Maurice River to a point on the Quebec and Lake St. John Ry. near River Jeanotte, 35 miles.

Quebec towards Seven Islands with branches to Murray Bay and Baie St. Paul, 200 miles.

Roberval westward towards James Bay, 100 miles.

St. Constant in Laprairie to the International boundary on the Delaware and Hudson Rd., passing through St. Edward, St. Cyprien, and Lacolle, 28 miles.

Ste. Agathe des Monts, southerly, 15 miles; from St. Andrews passing through the parishes of St. Placide and St. Martin, 38 miles; total 53 miles.

Waltham station to Ferguson Point, 20 miles.

The Naval Pocket Book for 1906 has been issued by W. Thacker & Co., 2 Creed Lane, Ludgate Hill, London, E.C., at 7s. 6d. Primarily a list of the naval vessels of the different nations, arranged and classified, it has a value to the mercantile marine as it contains a list of docks in all parts of the world, with the dimensions of the same.

Standard freight tariff no. 1, of the Hampton and St. Martins Ry., has been approved by the Board of Railway Commissioners. It is signed on behalf of the railway by G. W. Vaughan, Superintendent, St. John, N.B.

The Montreal Light, Heat and Power Company is constructing a power development plant at Soulanges, Que. Water will be taken from the Soulanges canal about 2,000 ft. east of lock 4, and will drop 55 ft. to the water wheels and then through the tailrace into the St. Lawrence River. The contract includes the construction of a canal about half a mile long and 160 ft. wide from the bottom with banks sloping 2 to 1. The construction of this canal will be similar to the construction of the Soulanges Canal. It is estimated there will be about 300,000 cubic yards of excavation required. The power house, penstock and dam will be constructed of reinforced concrete. The total development will be about 20,000 h.p., consisting of 4 units of 5,000 h.p. each. The Canadian White Co., Montreal, has the contract.

Orders by the Railway Commissioners.

The following orders have been issued by the Board of Railway Commissioners:

1117.—May 23.—Granting leave to Bell Telephone Co. to carry its wires across the G.T.R. at Talbot St., London, Ont.

1118. May 25.—Granting leave to Bell Telephone Co. to carry its wires over the Montreal Terminal Ry., at Montreal.

1119. May 17.—Granting leave to J. E. Culham, Stayner, to carry telephone wires over the G.T.R. in the township of Sunnydale, Ont.

1120. May 23.—Granting leave to the North Wellington Telephone Co. to carry wires over the C.P.R. at Kenilworth, Ont.

1124.—May 26. Granting leave to C.P.R. to cross the Canada Atlantic Ry., in Foley township, by an overhead bridge.

1125. April 16.—Authorizing location of G.T. Pacific Ry. in North Alberta district, mileage 102.730 to mileage 103.637, and mileage 0 to mileage 42.029.

1129. June 1.—Granting leave to the Midland Ry. of Manitoba to cross the C.P.R. at Elm Creek, Man.

1132. May 31.—Sanctioning location Vancouver, Victoria and Eastern Ry. and Navigation Co., mileage 0 to 40.0. Coquihalla summit to Tulameen, B.C.

1138. June 1.—Granting leave to the St. Maurice Valley Ry. to divert its line through the counties of Three Rivers, St. Maurice, and Champlain.

1141 to 1157 inclusive. June 6.—Granting leave to Bell Telephone Co. to cross the following railways at the following points: C.P.R. at St. Gabriel de Brandon, Man. G.T.R. at Raglan Street, Renfrew, Ont. Pere Marquette at Kingsville, Ont. G.T.R. at Mill Street, Berlin, Ont. C.P.R. 2 miles from Alton. G.T.R. at McGill St., Hawkesbury, Ont. C.P.R. at Alton, Ont. G.T.R. at Stratford, Ont. C.P.R. at Eugene Street, Hull, Que. C.P.R. at Munro and Raglan streets, Renfrew, Ont. C.P.R. at Blair St., Holland Station, Man. C.P.R. at Broadway St., Boissevain, Man. C.P.R. at Lochaber, Que. G.T.R. at Main Street, Hawkesbury. G.T.R. at Port Perry Station, Ont. Kingston and Pembroke Ry. at Munro and Raglan streets., Renfrew. C.P.R. near Shelburne station, Ont. G.T.R. at Lancaster St., Berlin, Ont.

1158. May 12.—Granting leave to the Guelph and Goderich Ry. to cross Harbor St., Goderich, Ont.

1160. June 1.—Granting leave to C.P.R. to cross the highway at mile post 105, Foley township, Ont.

1161. June 1.—Granting leave to the Quebec, New Brunswick and Nova Scotia Ry., to revise its location at Lorette, Que., between mileage 9 and 14.

1162. June 1.—Granting leave to the C.P.R. to deviate certain portions of its line near Nipissing Jct. station, Ont., and the Temagami Lumber Co.'s Mills.

1164. June 6.—Granting leave to the Vancouver, Victoria and Eastern Ry. to deviate its located line from Princeton east, a distance of 3.06 miles.

1166. June 1.—Granting leave to the C.P.R. to cross the public road between concessions 4 and 5, Scarboro township, Ont.

1168. May 28.—Granting leave to the Guelph and Goderich Ry. to permanently divert the highway near Milverton, Ont., between cons. 4 and 5, lot 5, Mornington, Ont.

1170. June 7.—Granting leave to the city of Toronto to lay a water main under the G.T.R. and C.P.R. on Bay St., Toronto.

STEAM SHOVELS

SOLE CANADIAN LICENSEES OF

"BUCYRUS"

SPECIALTIES

Derricks
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Wrecking Cranes

CANADA FOUNDRY COMPANY

LIMITED

Head Office: TORONTO, ONT.

District Offices: MONTREAL HALIFAX OTTAWA WINNIPEG VANCOUVER ROSSLAND

1181. May 5.—Granting leave to the township of Anderdon, county of Essex, to construct a drain under the Canada Southern Ry.

1185. June 12.—Sanctioning location plans of James Bay Ry., mileage 38 to 40, through Laval county, Quebec..

1187 to 1201 inclusive. June 16.—Granting leave to Bell Telephone Co. to cross the following railway tracks: G.T.R. 4 miles east of Hamilton. G.T.R. near Scarboro station. G.N.R. at Water St., Lachute, Que. M.C.Rd. at St. David's, Ont. G.T.R. at Burlington Ont. C.P.R. at Papineauville, Que. C.P.R. at 2 miles east of Plaisance, Que. C.N.R. at Main St., Dauphin, Man. T.H. and B. at Burton St., Hamilton. Pere Marquette at Coatsworth Station, Ont. C.P.R. at 1¼ miles south of ———. C.P.R. at Carroll station, Man. G.T.R. at Weber Street, Berlin, Ont. C.P.R. at John Street, Arnprior, Ont. G.T.R. at Manchester station, Ont.

1206. May 4.—Granting leave to the Windsor, Essex and Lake Shore Rapid Ry. to cross the Pere Marquette Rd. tracks near Kingsville, Ont.

1207 to 1212 inclusive. June 16.—Granting permission to Bell Telephone Co. to carry its lines across the G.T.R. 1½ miles north of Penetanguishene, Ont.; Stayner station, Ont.; Mount Albert, Ont.; and 1 mile east of Omemee Jct., Ont.; and the C.P.R. tracks 4 miles and 5 miles east of Souris, Man.

1213. May 17.—Extending the time fixed for the equipment of all box freight cars with ladders as provided for in sub-section 2 of sec. 211 of Railway Act, 1903, until Jan. 1, 1907.

1215. June 16.—Granting leave to Bell Telephone Co. to cross the Canada Atlantic Ry. at John St., Arnprior, Ont.

1217. June 18.—Sanctioning location plans of the Great Northern Ry. of Canada through Terrebonne county, Que., 15.1 miles.

Railway Commissioners' Freight Orders.

The Board of Railway Commissioners has issued the following:

1226. Meeting at Montreal, Dec. 14, 1905. In the matter of the complaint of the R. W. Oliver Milling Co. of Montreal, alleging that the G.T.R. Co. has been and are discriminating against the shippers and receivers in certain sections of the Province of Quebec, in favor of the shippers of south-western Ontario, in respect of the rates to points east on grain and on corn meal;, and applying for permission to grind grain in transit at their mill at Mile End, Que., at the through rate from the shipping point of the grain to the destination of the product thereof, with the addition of a reasonable charge for the stop-over at Mile End. Upon hearing what was alleged on behalf of the applicants and the G.T.R., upon reading the answer of the G.T.R. filed, and upon the report of its Chief Traffic Officer, and it appearing that the milling-in-transit arrangement applied for by the applicants has, since the hearing, been conceded by the C.P.R. Co. The Board orders that the rates on grain and grain products from points west of Montreal to and including Cornwall, Ont., on the G.T.R., and to and including Finch, Ont., on the C.P.R., and from G.T.R. points south of the St. Lawrence, in the counties of St. John's, Laprairie, and Napierville, Chateauguay and Huntingdon, to points in Quebec east of Levis, and in New Brunswick and Nova Scotia, shall not exceed the normal published tariff rates in effect at the same time, on the same commodities, from Montreal, by more than 2c. per 100 lbs., nor by more than the differences at present existing.

WALL PAPER RATES.

The Board has had under consideration the complaint of Stauntons Limited, of Toronto, respecting tolls on wall paper from Toronto to points in Ontario east thereof, and in Quebec, New Brunswick, and Nova Scotia. The Board considers that the long-continued existence of the former tolls affords strong evidence of their reasonableness, and that it does not appear that there has been any change of circumstances, or that there is any sufficient reason for the changes recently made in these tolls. The Board also considers that the charging of higher tolls for the traffic in question, from Toronto eastward, than are charged for similar traffic from Montreal and other points westward, constitutes an unjust discrimination against the Toronto shippers, and that these tolls should be equalized. Upon the evidence the board is of opinion that the elements of water competition and westbound empty cars do not affect the question, and that this case can be decided quite independently of the more general case raised by the Toronto Board of Trade, which the present decision of the Board should not be considered to affect. The Board has decided to order that the tolls for the eastbound traffic be reduced to the amounts in the tariffs for similar traffic westbound between the same points.

August Birthdays.

Many happy returns of the day to—

H. H. Adams, Superintendent Canadian Division, Michigan Central Rd., St. Thomas, Ont., born at Detroit, Mich., Aug. 13, 1876.

W. E. Bishop, Manager Hamilton Steamboat Co., Hamilton, Ont., born at Brantford, Ont., Aug. 10, 1868.

J. F. Chapman, General Freight and Passenger Agent, Bay of Quinte Ry., Thousand Islands Ry., Oshawa Ry., and Deseronto Navigation Co., Deseronto, Ont., born at Frankford, Hastings Co., Ont., Aug. 25, 1863.

J. J. Conelly, Trainmaster G.T.R., Montreal, born at Granby, Que., Aug. 13, 1873.

Barlow Cumberland, Vice-President Niagara Navigation Co., born at Portsmouth, Eng., Aug. 5, 1846.

H. G. Elliott, Assistant General Passenger and Ticket Agent, G.T.R., Montreal, born at Chambly, Que., Aug. 22, 1860.

Hon. W. Gibson, railway contractor, Beamsville, Ont., born at Peterhead, Scotland, Aug. 7, 1849.

G. H. Ham, Literary Department C.P.R., Montreal, born at Trenton, Ont., Aug. 23, 1847.

W. P. Hinton, General Agent, Passenger Department, G.T.R., Ottawa, born at Hintonburg, Ont., Aug. 30, 1871.

R. Kerr, Passenger Traffic Manager C.P.R., Montreal, born at Toronto, Aug., 1845.

J. D. McDonald, District Passenger Agent, G.T.R., at Toronto, born there Aug. 27, 1855.

T. McHattie, Master Mechanic, G.T.R., Montreal, born Dufftown, Banffshire, Scotland, Aug. 8, 1854.

J. E. Matthews, C.P.R., soliciting passenger agent, Charlottetown, P.E.I., born at Albany, P.E.I., Aug. 17, 1869.

W. E. Mullens, General Manager Costa Rica Rd., and Northern Rd. of Costa Rica, San Jose, born at Stratford, Ont., Aug. 13, 1870.

W. S. Nevins, City Freight Agent, C.P.R. and Minneapolis, St. Paul and Sault Ste. Marie Ry., Buffalo, N.Y., born at Towanda, Pa., Aug. 13, 1850.

W. M. Porteous, Freight Agent, C.P.R., St. Louis, Mo., born at Edinburgh, Scotland, Aug. 3, 1857.

J. F. Richardson, Superintendent Eastern Division C.P.R. Telegraphs, Montreal, born at Granby, Que., Aug. 23, 1861.

W. LeB. Ross, Local Treasurer G.T. Pacific Ry., Winnipeg, born at Ottawa, Ont., Aug. 9, 1868.

C. R. Scoles, General Manager Atlantic and Lake Superior Ry., New Carlisle, Que., born at Grantham, Lincoln, Eng., Aug. 27, 1856.

M. C. Sturtevant, General Assistant G.T. Pacific Ry., Winnipeg, born at St. Albans, Vt., Aug. 28, 1866.

W. F. Taylor, General Storekeeper I.C.R., Moncton, N.B., born at Hillsboro, N.B., Aug 20, 1855.

W. N. Warburton, General Manager Chatham, Wallaceburg and Lake Erie Ry., Chatham, Ont., born there Aug. 24, 1851.

Canadian Northern Ry. Earnings, etc.

Gross earnings, working expenses, net profits, increases or decreases over 1904-05, from July 1, 1905:

	Earnings.	Expenses.	Net Earnings.	Increase or Decrease.
July	$395,100	$ 252,600	$ 142,500	$ 51,400+
Aug.	357,900	246,200	111,700	12,200+
Sept.	378,500	268,300	110,200	14,000+
Oct.	557,100	298,900	258,200	113,600+
Nov.	566,800	341,700	225,100	68,700+
Dec.	437,800	295,600	142,200	7,100+
Jan.	359,900	260,600	99,300	10,800+
Feb.	301,400	217,900	83,500	23,300+
Mar.	441,600	324,200	117,400	46,800+
Apr.	544,800	349,100	195,700	112,300+
May	610,100	397,600	212,500	111,900+
	$4,951,000	$3,252,700	$1,698,300	$572,100+

Approximate earnings for June, $612,100, against $388,900 for June, 1905.

C.P.R. Earnings, Expenses, etc.

Gross earnings, working expenses, net profits, increases or decreases over 1904, from July 1, 1905:—

	Earnings.	Expenses.	Net Profits.	Increase or Decrease.
J'ly	$4,629,174.95	$2,991,397.29	$1,449,652.14	$188,125.52+
Aug.	4 796,733.98	3,005,088.07	1,791,645.91	263,715.48+
Sept.	4,872,575.38	3,086,565.35	1,776,010.05	507,202.49+
Oct.	5.722,767.30	3,448,696.12	2,274,071.18	707,957.27+
Nov.	5.741,543.12	3,380,232.13	2,316,310.99	691,736.25+
Dec.	5,619,182.83	3,272,599.52	2,346,583.31	683,914.48+
Jan.	4,422,690 96	3,155,456.94	1,267,234.02	844,565.55+
Feb.	4,224,451.76	3,018,707.98	1,205,743.78	903,572.46+
Mar.	5,093,286 24	3,248,621.74	1,844,664.50	661,837.46+
April	5,490,999.86	3,148,441.02	2,342,558.84	810,752.63+
May.	5,579,003.15	3,391,340.52	2,187,662.63	799,727.75+
	$56,192,409.53	$35,157,146.66	$21,035,262.87	$7,063,107.34+

Approximate earnings for June, $5,420,000, against $4,376,000 for June, 1905.

Duluth, South Shore and Atlantic Ry.—Gross earnings for May, $269,725.87; net earnings $88,421.02, against $252,279.41 gross and $62,695.43 net for May, 1905. Net earnings for eleven months ended May 31, $911,114.56 against $790,905.87 for same period 1904-05. Approximate earnings for June, $265,064 against $245,258 for June, 1905.

Mineral Range Ry.—Approximate earnings for June, $54,416, against $60,419 for June, 1905.

Minneapolis, St. Paul and Sault Ste. Marie Ry.—Gross earnings for May, $937,266.11; net earnings, $380,896.18, against $672,966.81 gross and $246,488.98 net for May, 1905. Net earnings for eleven months ended May 31, $5,364,369 94 against $3,837,691.09 for same period 1904-05. Approximate earnings for June, $959,286 against $725,935 for June, 1905.

Grand Trunk Ry. Earnings, Expenses, etc.

The following statement of earnings, supplied from the Montreal office, includes the G.T. of Canada, Canada Atlantic Ry., the G.T. Western, and the Detroit, Grand Haven & Milwaukee Rys.

	1906.	1905.	Increase.	Decrease.
Jan	$2.896.439	$2,674,242	$222,197	....
Feb	2,602,274	2,268,252	334.022	....
Mar	3,268,011	3,047,060	220,951	....
April	3,180,305	2.990,209	190,096	....
May	3,402,544	3,080,242	322.302	....
June.	3,559,500	3,179,582	379,918	....
	$18,909,073	$17,239,587	$1,669,486	....

The following figures relate to the individual lines, and are made out in sterling:

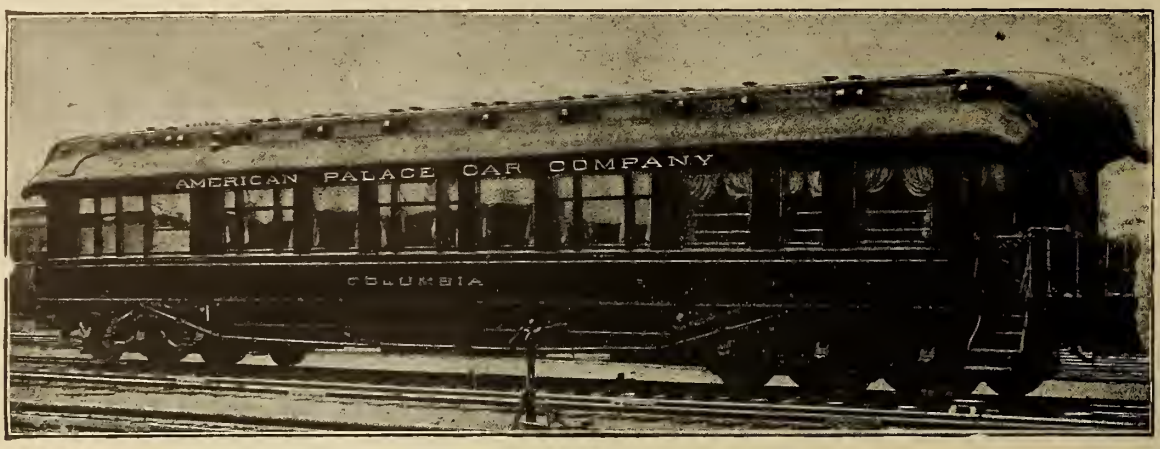
GRAND TRUNK RY. CO.

Revenue for May:

	1906.	1905.	Increase.	Decrease.
Gross receipts	£556,200	£506,200	£50,000	....
Working expenses	342,500	321,200	21,300	....
Net profit	£213,700	£185,000	£28,700	....

VENTILATION—SANITATION—COMFORT—SAFETY

THE AMERICAN PALACE CAR COMPANY



Exterior of the Private Car "Columbia" now in Commission Demonstrating the Advantages of the New System of Combined Sleeping, Parlor and Dining Car owned by the Company. Protected by Patents in the United States, Canada and Foreign Countries.

Operating a new system of convertible parlor and sleeping cars whereby the beds are lowered into ventilated, steel-lined, dust-proof receptacles underneath the car, affording the passenger the advantage of an open parlor, with movable chairs, sofas, etc., by day, with no semblance of a sleeping car.

Over 100 of these cars now under construction or ordered for operation on American and Canadian railroads. Prospectus and full particulars free on application.

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PINTSCH LIGHT

The new Pintsch Gas Inverted Mantle Lamp for passenger cars increases illumination over three times with the same consumption of gas—a revolution in train lighting.

CAR HEATING

160 railroads are using on 19,000 cars the Safety devices for direct steam and hot water heating.

SAFETY CAR HEATING AND LIGHTING COMPANY

160 Broadway - NEW YORK CITY

CHICAGO ST. LOUIS PHILADELPHIA SAN FRANCISCO

Aggregate from Jan. 1 to May 31:

	1906.	1905.	Increase.	Decrease.
Gross receipts	£2,447,800	£2,199,100	£248,700	....
Working exp'ses	1,723,700	1,562,100	161,600	....
Net profit	£724,100	£637,000	£87,100	....

CANADA ATLANTIC RY. CO.

Revenue for May:

	1906.	1905.	Increase.	Decrease.
Gross receipts	£39,100	£36,300	£ 2,800	....
Working expenses	33,400	23,300	10,100	....
Net profit	£ 5,700	£13,000	....	£ 7,300

Aggregate from Jan. 1 to May 31:

	1906.	1905.	Increase.	Decrease.
Gross receipts	£147,300	£138,800	£ 8,500	....
Working expenses	128,900	104,800	24,100	....
Net profit	£18,400	£34,000	....	£15,600

GRAND TRUNK WESTERN RY. CO.

Revenue for May:

	1906.	1905.	Increase.	Decrease.
Gross receipts	£ 82,300	£ 73,500	£8,800	....
Working expenses	70,400	66,000	4,400	....
Net profit	£ 11,900	£ 7,500	£4,400	....

Aggregate from Jan. 1 to May 31:

	1906.	1905.	Increase.	Decrease.
Gross receipts	£429,000	£440,700	....	£11,700
Working expenses	370,000	376,800	....	6,800
Net profit	£59,000	£63,900	....	£ 4.900

DETROIT, GRAND HAVEN & MILWAUKEE RY. CO.

Revenue for May:

	1906.	1905.	Increase.	Decrease.
Gross receipts	£ 21,800	£ 17,100	£ 4,700	....
Working expenses	20,400	16,900	3,500	....
Net profit	£ 1,400	£ 200	£ 1,200	....

Aggregate from Jan. 1 to May 31:

	1906.	1905.	Increase.	Decrease.
Gross Receipts	£129,600	£110,200	£19,400	....
Working Expenses	104,800	91,500	13,300	....
Net profit	£24,800	£18,700	£ 6,100	....

TRAFFIC RECEIPTS OF THE SYSTEM.

Aggregate from Jan. 1 to June 30:

	1906.	1905.	Increase.	Decrease.
Grand Trunk	£3,021,129	£2,729,610	£291,519	....
Canada Atlantic	190,997	176,961	14,036	...
G. T. Western	515,744	505,793	9,951	....
D. G. H. & M.	157,795	130,213	27,582	....
Total	£3,885,665	£3,542,577	£343,088	....

Canadian Pacific Railway Land Sales.

	Acres.		Amount.	
	1905-06.	1904-05.	1905-06.	1904-05.
July	58,477.37	36,425.75	$304,795.23	$177,473.94
Aug.	58,542.44	15,669.90	327,579.63	88,735.88
Sept.	111,479.71	16,470.02	556,642.64	73,642.96
Oct.	79,168.41	23,792.84	412,237.95	104,843.47
Nov.	200,441.36	23,392.88	1,065,512.03	112,261.70
Dec.	52,288.20	32,196.59	282,095.12	142,538.40
Jan.	48,249,38	34,500.41	273,115.75	141,750.50
Feb.	68,658.12	27,503.53	378,807.56	116,278.76
Mar.	46,112.80	15,906.61	329,431.94	87,576.00
April	87,364.74	22,030.37	520,968.41	125,210.08
May	69,260.02	58,095.21	538,633.40	282,796.37
June	75,403.35	64,968.62	588,013.69	340,759.75
	955,375.90	370,952.72	$5,577,833.35	$1,793,912.81

The Dominion Parliament last session voted $72,500 for the supply of new machinery for the locomotive and car shops at Moncton, N.B.; $14,000 for a steam shovel; $1,800 for providing air compressor and reservoir at Gibson, N.B.; $1,500 for time recorders and watchmen's clocks for the Intercolonial Ry. A vote of $10,000 was also made on account of new machinery for the Prince Edward Island Ry.

The Montreal Terminal Warehouse and Cartage Co. is erecting a large storage warehouse on Grey Nun St., Montreal, which, it is said, will be the most modern building of its kind in Canada. It is of steel construction and will be absolutely fireproof. It is 100 x 196 ft., six stories high and basement. It will have two fast electric elevators of large capacity. Railway tracks will run directly into the building, and there will be every facility for the prompt and economic handling of all classes of merchandise. The construction of this building was started in May, and it is expected that it will be completed during Aug. The Canadian White Co., Montreal, has the contract.

Additional Dominion Legislation

In addition to the acts respecting railway companies, etc., mentioned in our last two issues, the Dominion Parliament at its current session has also passed acts respecting the following:

Alberta Ry. and Irrigation Co.—Extending time for construction.

Algoma Central and Hudson Bay Ry.—Extending time for construction.

Ashcroft, Bakerville and Fort George Ry. Co.—Act of incorporation.

Bell Telephone Co. of Canada.—Increasing capital stock, and granting increased powers.

Brandon Transfer Ry. Co.—Act of incorporation.

Buffalo, Niagara and Toronto Ry. Co.—Act of incorporation.

Burk's Falls and French River Ry.—Act of incorporation.

Canada Atlantic Ry. Co.—Act respecting company's powers.

Canadian-Minnesota Bridge Co.—Act of incorporation.

Central Ontario Ry. Co.—Granting extension of time for construction.

Central Ry. Co. of Canada.—Extending time for construction and granting additional powers.

Columbia and Kootenay Ry. and Navigation Co.—Granting extension of time for construction.

Cobalt Range Ry. Co.—Act of incorporation.

Erie, London and Tillsonburg Ry. Co.—Act of incorporation.

Fording Valley Ry. Co.—Act of incorporation.

Fort William Terminal Ry. and Bridge Co.—Act of incorporation.

Grain Inspection.—Amending the act respecting inspection of grain, and a second act amending the Manitoba Grain Act, 1900.

G. T. Pacific Branch Lines Co.—Act of incorporation.

Grand Trunk Pacific Telegraph Co.—Act of incorporation.

Grand Valley Ry.—Extending time for construction, and amending the company's powers.

Hamilton, Waterloo and Guelph Ry. Co.—Act of incorporation.

Hillcrest Ry., Coal and Coke Co.—Act of incorporation.

Huron and Ontario Ry.—Extending time for construction.

James Bay Ry. Co.—Authorizing the construction of additional lines, and extending time for construction.

Kamloops and Yellowhead Pass Ry. Co.—Act of incorporation.

Kettle River Valley Ry. Co.—Granting extension of time for construction.

Manitoba and Keewatin Ry.—Extending time for construction.

Manitoulin and North Shore Ry.—Extending time for construction.

Montreal Harbor Commissioners.—Providing for further advances by the Government to the commissioners.

Montreal, Ottawa and Georgian Bay Ry. Co.—Extending time for construction and granting power to issue bonds.

Montreal Park and Island Ry. Co.—Granting extension of time for construction.

Niagara, Queenston and St. Catharines Ry. Co.—Granting extension of time for construction.

Niagara, St. Catharines and Toronto Ry.—Extending time for construction, and authorizing extensions.

National Transcontinental Ry. Act.—Respecting deposit by the G.T. Pacific Ry.

Northern Commercial Telegraph Co.—Respecting the powers of the company.

North Sydney.—Respecting the harbor of North Sydney, N.S.

Ontario Northern and Temagami Ry.—Extending time for construction.

Ottawa, Brockville and St. Lawrence Ry. Co.—Granting extension of time for construction.

Pacific and Atlantic Ry.—Extending time for construction.

Pacific Northern and Omineca Ry. Co.—Granting extension of time for construction.

Prince Albert and North Saskatchewan Ry. Co.—Act of incorporation.

Qu'Appelle, Long Lake and Saskatchewan Rd. and Steamboat Co.—Act respecting the company.

Quebec and Lake Huron Ry. Co.—Granting extension of time for construction.

Quebec Harbor Commissioners.—Act respecting the powers of the commissioners.

Quebec, Montreal and Southern Ry. Co.—Act of incorporation, and authorizing the taking over of the Quebec Southern Ry., and South Shore Ry.

Quebec, Saguenay and Gulf of St. Lawrence Ry. Co.—Granting extension of time for construction.

Railway Act.—Amending the Railway Act of 1903.

Railways.—Providing for the granting of subsidies in aid of the construction of certain specified lines of railway.

Revellion Brothers, Limited.—Respecting their trading powers.

Richelieu and Ontario Navigation Co.—Respecting the company's powers.

Safety of Ships.—Respecting the safety of ships and the prevention of accidents on board.

Schomberg and Aurora Ry. Co.—Authorizing the construction of additional lines, and granting an extension of time for construction.

St. Mary River Bridge Co.—Extending time for construction.

Southern Central Pacific Ry.—Extending time for construction.

Temagami, Cobalt and Temiskaming Ry. Co.—Act of incorporation.

Thorold and Lake Erie Ry. Co.—Granting extension of time for construction.

Toronto and Hamilton Ry. Co.—Authorizing a change of name to the Toronto, Niagara and Western Ry., and granting an extension of time for construction.

Toronto Terminals Ry. Co.—Act of incorporation.

Trans-Niagara Bridge Co.—Act of incorporation.

Vancouver, Fraser Valley and Southern Ry. Co.—Act of incorporation.

Vancouver, Westminster and Yukon Ry.—Extending time for construction and authorizing construction of additional lines.

Windsor, Chatham and London Ry. Co.—Act of incorporation.

Windsor, Essex and Lake Shore Rapid Ry.—Extending time for construction and other purposes.

The British Columbia Car Service Bureau embraces in its membership all railways in B.C. The members of the Executive Board are: R. W. Bryan, St. Paul, Minn.; H. A. Kennedy, Spokane, Wash.; J. A. McGregor, Winnipeg; R. Marpole, W. O. Miller, Vancouver; R. C. Morgan, Spokane, Wash.; Manager, E. J. Travers, Nelson, B.C.

The Judicial Committee of the Privy Council, London, Eng., heard arguments, and has reserved judgment in the case of the Attorney-General for Canada against Cain and Gilhula. This is the case in which Trainmaster Cain and Chief Train Dispatcher Gilhula, of the Pere Marquette Rd., were ordered to be deported under the provisions of the Alien Labor Act, they having been brought into Canada from the U.S. in connection with the operation of the Pere Marquette lines in Canada. The appeal to the Privy Council is a consolidated one, the main question being whether the Dominion Parliament had power to pass the act.

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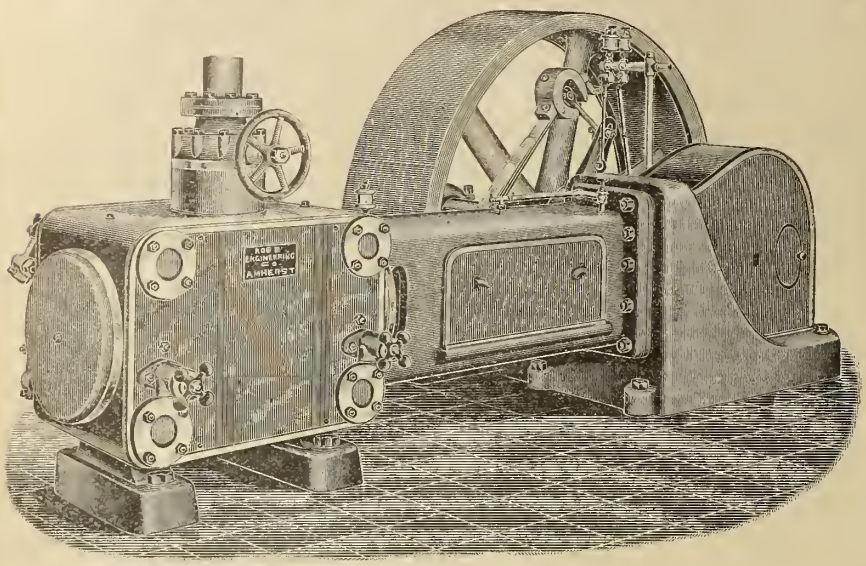

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TRADE AND SUPPLY NOTES.

The matter which appears under this heading is compiled, in most cases, from information supplied by the manufacturers of, or dealers in, the articles referred to, and in publishing the same we accept no responsibility. At the same time we wish our readers to distinctly understand that we are not paid for the publication of any of this matter, and that we will not consider any proposition to insert reading matter in our columns for pay or its equivalent. Advertising contracts will not be taken with any condition that accepting them will oblige us to publish reading notices. In other words, our reading columns are not for sale, either to advertisers or others.

The Robb Engineering Co., Amherst, N.S., is building for the Hamilton Iron and Steel Co. a 250 h.p. engine for direct connection to Westinghouse generator.

The Western General Electric Co., Red Deer, Alta., is enlarging its electric lighting plant and has placed an order with the Robb Engineering Co. for a 250 h.p. compound Corliss engine and Robb-Mumford boiler.

The Standard Explosive Co. (Ltd.), Montreal, has a contract with Foley Brothers, Larsen & Co., for their entire requirements of explosives for the C.P.R. second track work between Fort William and Winnipeg. It has also closed a contract with J. D. McArthur, of Winnipeg, for the supply of all explosives for his contract on the National Transcontinental Ry. from Lake Superior Junction to Winnipeg. These two contracts will amount to over $1,000,000.

The Canadian Fairbanks Co., in the July number of its house magazine, gives a resume of what it has accomplished at Toronto during the past 30 months. The company has erected a warehouse at 26-28 Front St., to replace the one at 41 Front St., destroyed by fire April 19, 1904, and has erected a manufacturing plant on a site of 10 acres, near Bloor St., situated between the G.T.R. line, Northern Division, and the C.P.R. The buildings at this point comprise a machine shop 285 ft. long by 106 ft. wide, two stories high, with galleries, and fitted with an electric travelling crane covering the entire centre; a foundry 72 by 130 ft., equipped with a travelling crane and cupola; a blacksmith shop 72 by 98 ft.; and a power house. The area of land acquired is sufficiently large to enable additions to be made to these buildings.

The act incorporating Revillon Brothers, Limited, at present carrying on a variety of businesses in Quebec, Edmonton, Alta., and throughout the Hudson Bay territory, was passed last session of the Dominion Parliament. The company has hitherto been carrying on a navigation business on Hudson Bay, and from Athabasca Landing Alta., northerly, in connection with its business under the provisions of the Dominion Companies' Act.

An act respecting immigration and immigrants was passed last session of the Dominion Parliament, which affects ocean vessels trading to Canada. The number of passengers which may be carried by such vessels is limited according to area of decks and tonnage; and masters of all vessels have to make out lists of all passengers on board; no passenger may leave the vessel without permission, and penalties are to be enforced in case of infraction of the rules.

The British Government has issued some additional regulations respecting the prevention of collisions at sea, particularly applicable to fishing boats of all descriptions. The additional regulations are to be read and construed as part of the regulations contained in schedule 1 to the order-in-council issued under sec. 418 of the Merchant Shipping Act, Nov., 1896. The order is published by the Dominion Government for the direction of Canadian fishermen and mariners.

RAILWAY DEVELOPMENT.

Projected Lines, Surveys, Construction, Betterments, Etc.

Alberta Ry. and Irrigation Co.—The Dominion Parliament at its recent session passed an act extending the time for the construction of this company's authorized railways. (Mar., pg. 131.)

Albert Southern Ry.—At the last session of the New Brunswick Legislature an act was passed providing aid for the construction of a railway from Coverdale, opposite Moncton, N.B., to a junction with the Albert County Ry., not exceeding seven miles.

Algoma Central and Hudson Bay Ry.—An act was passed last session of the Dominion Parliament granting an extension of time for the construction of this company's authorized lines of railway, and authorizing it to enter into agreements with the Canada Central Ry., the Manitoulin and North Shore Ry., and the Hudson's Bay and Western Ry. (May, pg. 253).

Ashcroft, Bakerville and Fort George Ry.—E. L. Drewry, H. Crowe, C. S. Riley, of Winnipeg, Man., are the provisional directors named in the act passed last session of the British Columbia Legislature, incorporating a company with this title for the purpose of constructing a railway from Ashcroft to Fort George, with branches to Bakerville, and to a connection with the Grand Trunk Pacific Ry. The company is also authorized to construct telephone and telegraph lines in connection with its railway, to enter into traffic and other agreements with other companies, and to carry on an express business.

The company's head office is to be at Vancouver, but may be changed at an annual meeting to any other place in Canada; its capital is fixed at $5,000,000 and bonds to the extent of $35,000 a mile may be issued.

The Dominion Parliament at its recent session passed an act incorporating the same persons with the addition of D. M. Eberts and H. D. Twigg, of Victoria, with the above title, to construct a railway from Ashcroft or Kamloops to Fort George, with branches to Bakerville and the G.T. Pacific Ry. The company is authorized to enter into agreements with the G.T. Pacific Ry., the C.P.R., or the Edmonton, Yukon and Pacific Ry. (Feb., pg. 61).

Atlantic, Quebec and Western Ry.—The prospectus of an issue of bonds in London, Eng., states that a considerable amount of work has already been carried out, a short length of line is ready for tracklaying, and that construction is being proceeded with. The company is offering for subscription at £95 per £100 bond, £750,000 of 5% first mortgage bonds, payable in 1935; unless previously redeemed according to the terms of the trust deed, at £115, at six months' notice after 1915. The directors named in the prospectus are: Viscount Templetown, Earl of Ranfurly, W. Moffatt, E. B. Read, J. M. Sing, in Great Britain; C. Brien and J. Lavoie, of Gaspe, Que. The secretary is E. S. Elvey, the offices being at 87 Strand, London, W.C. (July, pg. 379).

Bella Coola and Fraser Lake Ry.—The B.C. Legislature last session passed an act incorporating a company with this title for the purpose of constructing a railway from Bella Coola River to Fort George, thence to the mouth of the Telkwa River, with power to construct branches to the Blackwater River and Chilcotin country. The provisional directors are E. Dewdney and A. P. Luxton, Victoria, B.C.; the capital is $2,000,000; the bonding powers are fixed at $35,000 a mile, and the offices are to be at Victoria. The company is also given the usual powers as to telegraph and telephone lines, express business, and in respect to agreements with other companies. (Dec., 1905, pg. 561).

Brandon Transfer Ry.—K. Campbell, J. Inglis, A. C. Fraser, F. Nation, A. D. Rankin, J. McDiarmid, W. Warner, J. W. Fleming, A. B. McLeod, A. F. Campbell, J. Cornell, O. L. Harwood, C. Whitehead, R. Hall, B. Trotter, W. J. Lindsay, G. R. Coldwell, W. M. Alexander, T. J. Somerville, of Brandon, Man., were incorporated by an act passed last session of the Dominion Parliament for the purpose of constructing a railway from the main line of the C.P.R. at Brandon, south or south-east to the southern boundary of the city; thence to the eastern boundary, and thence northerly to the C.P.R. main line, with power to construct spur lines and to make connection with all lines at present entering, or which may hereafter enter Brandon. (Mar., pg. 131).

British Columbia Central Ry.—J. Ritchie, H. Atkinson, J. M. Robinson, Summerland, B.C.; T. J. Smith, Vancouver, B.C.; G. H. Bulyea, Edmonton, Alta.; J. N. Kirchoffer, Brandon, Man., were incorporated last session of the B. C. Legislature, as a company with this title to construct a railway from near Osoyoos, at the International boundary, northerly to Enderby; westerly to Kamloops, thence northerly to Quesnelle and Fort George; from Enderby to the Spallumcheen River; from Kamloops via Quilchena and Princeton to the International boundary; from Quilchena along the Upper Nicola River to Salmon Arm; and from Summerland to Penticton, with power to construct branches not exceeding twelve miles in any one instance. The company is given all the usual powers of a railway company; its capital is $3,000,000, and its bonding powers are fixed at $35,000 a mile.

British Columbia Northern and Alaska Ry.—The B. C. Legislature at its last session passed an act incorporating H. Blitz, E. Auerbach, of New York city, and L. Auerbach of the State of Massachusetts, as a company with this title to construct a railway from Vancouver to the northern boundary of the province, by way of Lillooet, the Fraser Valley, Tackla Lake, Stikine River, and Teslin Lake, or alternatively through the Chilcotin Valley and the Stikine Valley. The company is given all the usual powers; its offices are to be at Vancouver; its capital is $2,000,000 and it is given power to issue bonds to the extent of $35,000 a mile of constructed railway.

British Columbia Northern and Mackenzie Valley Ry.—The powers conferred by the British Columbia and Yukon Ry. Act, passed in 1903, have been revived by the B.C. Legislature, and at its last session were conferred on R. L. Patterson, Toronto; J. W. Haskins, and C. H. Lugrin, Victoria, B.C. The company is authorized to divide the construction of its line into five sections, viz.: (1) Nasoga Gulf to Dease Lake; (2) Dease Lake to the northern boundary of B.C.; (3) Dease Lake to Telegraph Creek or Glenora; (4) Dease Lake to the eastern boundary of B.C.; (5) from a point between Dease Lake and Glenora to Atlin City. Two sections of the line are to be completed within five years and the whole line within ten years.

Buffalo, Niagara and Toronto Ry.—An act was passed at the recent session of the Dominion Parliament incorporating a company with this title for the purpose of constructing a railway from Niagara-on-the-Lake to the International boundary near Fort Erie, Ont. The provisional directors are: W. D. Woodruff, P. I. Price, F. N. Hara, R. Fowlie, H. Yale, St. Catharines, Ont.; R. W. Leonard, Fort William, Ont.; E. J. McIntyre, Niagara-on-the-Lake, and J. Kilgour, Toronto. The head offices of the company are to be at St. Catharines; the capital is $600,000, and the company may issue bonds to the extent of $30,000 per mile of constructed lines. Power was given to enter into agreements with the C.P.R., G.T.R., the Toronto and

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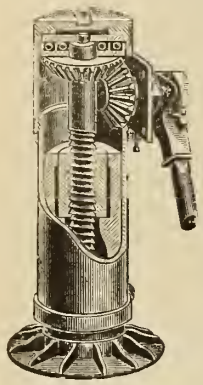
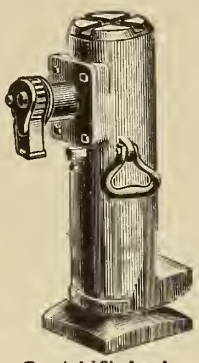

Sectional View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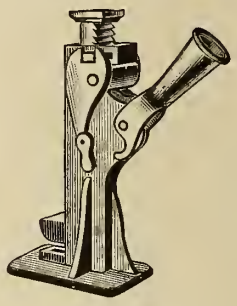
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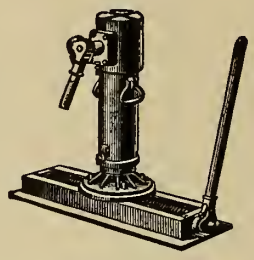
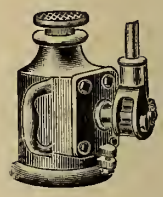

Traversing Jack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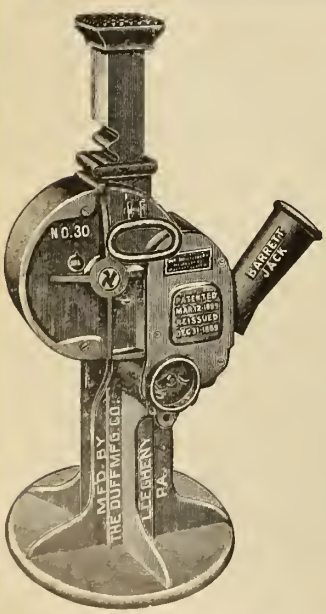

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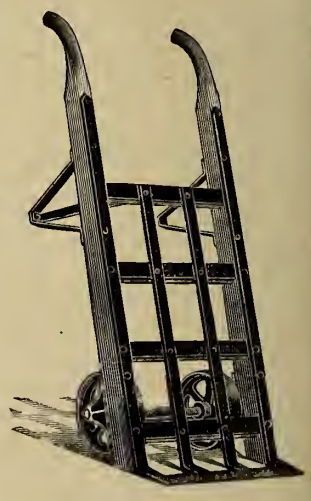

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Burk's Falls and French River Ry.—R. J. Watson, D. R. McLean, A. A. Agar, Burks' Falls, Ont.; V. Ratz, Park Hill, Ont.; R. Cook, South River, Ont., have been incorporated by the Dominion Parliament with this title, for the purpose of constructing a railway from Burk's Falls, by the most feasible route, to the French River, Ont. The capital of the company is fixed at $500,000; it may issue bonds to the extent of $30,000 a mile, and may enter into traffic and other agreements with the C.P.R., G.T.R., and James Bay Ry. (May, pg. 253).

Calgary and Fernie Ry.—The Dominion Parliament passed an act at its last session incorporating a company with this title to construct a railway from Calgary, Alta., south-west through Kananaskis Pass to the head waters of the Elk River, thence to Fernie, B.C. The provisional directors are W. R. Ross, J. S. T. Alexander, I. R. Poole, Fernie, B.C.; D. M. Eberts, Victoria; G. A. Fraser, Grand Forks, B.C.; and the company is authorized to enter into agreements with the C.P.R., the Calgary and Edmonton Ry. and the Crow's Nest Southern Ry. (Mar., pg. 131).

Canadian-Minnesota Bridge Co.—D. B. Hanna, Z. A. Lash, G. G. Ruel, C. Annesley, W. H. Moore, of Toronto, were incorporated by an act passed last session of the Dominion Parliament with this title for the purpose of constructing a railway, or railway and general traffic bridge, with the facilities and approaches required therefor, over the Rainy River from near Pither's Point, Ont., to the State of Minnesota. The company is authorized to enter into an agreement with a company in the U.S. for the construction of the bridge, and provision is made for the appointment of a joint commission for the management of the bridge. Authority is given to charge tolls for the use of the bridge; the plans for which have to be approved by the Governor-in-Council, as well as by the Railway Commissioners in Canada, and by the U.S. Department of War. (Mar., pg. 131).

Central Ontario Ry.—The Dominion Parliament at its recent session passed an act extending the time for the construction of the authorized lines for a further period of five years. (Feb., pg. 63).

Central Ry. of Canada.—An act was passed at the recent session of the Dominion Parliament authorizing the increase of the capital stock to $10,000,000; the issue of bonds upon the terminal properties at Owen Sound, Midland, Stratford, London, St. Thomas and Toronto; the purchase of bonds, shares or other securities of companies having similar powers, extending the time for construction of the authorized lines of railway; declaring the undertaking to be one for the general advantage of Canada; and confirming agreements for the purchase of the undertaking of the Ottawa River Ry. in consideration of 2,000 fully paid-up shares of the company; and for the purchase of the Carillon and Grenville Ry. (May, pg. 253).

Cobalt Range Ry.—L. H. Timmins, Mattawa, Ont.; J. McMartin, Cornwall, Ont.; J. J. Heney, C. A. McCool, and M. J. Gorman, Ottawa, were incorporated as a company with this title, at the last session of the Dominion Parliament, for the purpose of constructing a railway from Haileybury, Ont., to the Ottawa River; from Fort Temiscamingue, Que., to Ville Marie, thence easterly and southerly to a junction with the Interprovincial and James Bay Ry., between Ville Marie and Kippewa, or to a junction with the Temiskaming Colonization Ry. at Kippewa. The company is authorized to operate a steam ferry for its trains between the Ontario shore and Fort Temiscamingue. Power is given to connect the line in Haileybury with the Temiskaming and Northern Ontario Ry., and to enter into traffic and other agreements with the T. and N.O. Ry.; the Interprovincial and James Bay Ry.; the Temiskaming Colonization Ry., and the Temiskaming Navigation Co. (May, pg. 253).

Cowichan, Alberni and Fort Rupert Ry.—The British Columbia Legislature at its last session passed an act reviving the act incorporating the company authorized to construct a line from Cowichan Bay, to Sariba River; a line to Alberni, and thence to Fort Rupert, and a branch to Quatsino Sound, with other branch lines. The company has also been granted power to construct a line to Victoria or to any point on Esquimalt Harbor. The provisional directors mentioned in the act of incorporation of 1904 are: J. T. Braden, J. Thompson, E. C. B. Bagshawe, and Edith M. G. L. Thompson, all of Victoria, B.C.

Crawford Bay and St. Mary's River Ry.—An act was passed last session of the Dominion Parliament granting an extension of time for the construction of the company's proposed railway from Crawford Bay to Fort Steele, B.C.; and authorizing the further construction of the railway from Fort Steele to Lethbridge, Alta. (Mar., pg. 131).

Cross Creek to Stanley, N.B.—In the act respecting aid for the construction of railways passed at the last session of the New Brunswick Legislature, provision was made for a subsidy towards the construction of 11 miles of railway from Cross Creek Station on the old Canada Eastern Ry., to Stanley village.

Cuba Co.—The Senate of Cuba has passed a bill providing for the appropriation of $6,000 per kilometer for the construction of twelve branch lines to act as feeders for the lines constructed by the Cuba Co., of which Sir Wm. Van Horne is President. The subsidy will be paid at the rate of not exceeding $500,000 a year until the lines are completed. (July, pg. 379).

Delaware and Hudson Rd.—While it has not been officially announced, it is generally understood that the line being constructed between Rouse's Point, at the International boundary between Quebec and New York, to St. Constant, Que., under the charter of the Napierville Jct. Ry., is to be operated by the Delaware and Hudson Rd. The new line starts at the International boundary, about one mile from Rouse's Point, and runs to the C.P.R. main line, about a mile east of St. Constant village, 27.2 miles. The line passes through Lacolle, Napierville, St. Jacques and St. Edouard, a rich farming country. The country is fairly level, and an air line has been located with a maximum gradient of ½ of 1% and a maximum curvature of 2°. The track will be 20 ft. wide at sub-grade, all sub-structures being of concrete; there will be seven small bridges, the longest span being 50 ft. clear over the Little Montreal River at Napierville. There will be station buildings on the line at Lacolle village, Napierville, and St. Edouard, and tanks at the latter two points. The company's chief engineer in charge of construction is A. H. N. Bruce, whose headquarters are at Lacolle. The contractors are the Pacific Construction Co., E. J. Chamberlin, Ottawa, President; G. E. Fauquier, Ottawa, Vice-President and Manager. A sub-contract has been let to Rogers and Quirk for 13 miles of grading and fence work. The track is to be laid with 80 lb. steel. It is expected to have the line completed and ready for operation in the fall.

The Dominion Parliament at its last session passed an act incorporating a company with the title of the Quebec, Montreal and Southern Ry., for the purpose of taking over and operating the South Shore Ry., the United Counties Ry., and the East Richelieu Valley Ry., which were purchased by Senator F. L. Beique for the Delaware and Hudson Rd., through the Exchequer Court, which had directed a sale on the ground of their insolvency. The capital is fixed at $2,000,000; the offices are to be at Montreal, and the company may make agreements with the D. and H. Rd., the Napierville Jct. Ry., as well as the various other railways operating at or near the boundary or elsewhere in Quebec Province. The undertaking is declared to be a work for the general advantage of Canada. The provisional directors mentioned in the act are: D. Wilcox, President Delaware and Hudson Co., New York; A. I. Culyer, Second Vice-President D. and H. Co., Albany, N.Y.; Hon. R. Lemieux, Ottawa; Hon. F. L. Beique, G. F. Hartt, Montreal. All the franchises and rights possessed by the South Shore Ry., and the Quebec Southern Ry., are conferred upon the Q., M. and S. Ry. Co.; it is authorized to complete the various lines which the South Shore Ry. had power under its acts to construct, and to extend the line from Noyan Jct. to the International boundary. (July, pg. 379).

Detroit River Tunnel.—A press despatch, dated July 20, stated that a contract had been let to Haney & Miller, Toronto, for the construction of the double tunnel, under the Detroit River, between Windsor, Ont., and Detroit, Mich. A representative of the firm stated on the following day that the firm's proposals respecting the construction of the tunnel were under consideration; that no contract had been let, but that it was expected that one would be arranged in a few days. Tenders were invited for the work at the end of March, and the various proposals submitted were considered by the board of engineers having charge of the construction. (April, pg. 181 and pg. 193).

Erie, London and Tillsonburg Ry.—The act incorporating a company to construct a railway from Port Burwell to London, Ont., under this name, was passed by the Dominion Parliament. (July, pg. 379).

Essex Terminal Ry.—An act was passed at the recent session of the Dominion Parliament changing the location of the company's offices to Walkerville, Ont., and extending the time for the construction of the railway. The company proposes to construct a line of about 3.8 miles from the G.T.R., at a point about three-quarters of a mile east of Walkerville to the Michigan Central Rd., about half a mile south of the Tecumseh road, passing through the southerly portions of Walkerville and Windsor, and crossing the C.P.R. tracks. We are advised that the right of way for this line is being secured, a contract for construction let, and that it was expected that a start would be made on the work by the end of July. The track will be laid with 80-lb. steel. Owen McKay, Walkerville, is Chief Engineer. The company has power to extend its line along the river to Sandwich, and to connect with the various lines approaching the International boundary there. The officers and directors for the current year are: President, A. L. Colby; Treasurer, C. F. Doherty; Secretary, J. H. Coburn; other directors: G. F. Porter, G. E. Roehm. (July, pg. 379).

Fording Valley Ry.—The provisional directors named in the act passed at the recent session of the Dominion Parliament incorporating a company with this title, for the construction of a number of lines of railway in the Fording River valley, are: J. W. Pyke, W. H. Evans, of Montreal; A. Laidlaw, of Spokane, Wash., and W. Johnston. Several of these are interested in the Imperial Coal and Coke Co., which owns extensive coal areas in the valley, and the lines are projected to connect the collieries with the railway systems of the continent. (June, pg. 327).

Fort William and Port Arthur Terminal Ry. and Bridge Co.—W. H. Hamilton, J. T. Horne, Fort William, Ont.; R. A. Ruttan, Port

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Arthur, Ont.; J. J. Drew, Guelph, Ont.; W. A. Dowler, Tillsonburg, Ont., were incorporated by an act passed last session of the Dominion Parliament, as a company with this title, to construct several short lines of railway in Fort William and Port Arthur, Ont., so as to connect the C.P.R., the Canadian Northern Ry., and the G.T. Pacific Ry., and to give connection to the various industries, already existing or which may be established. Power is also given to construct a bridge across the Kaministikwia River to Fort William, and across McKellar Creek, between islands one and two, and to charge tolls for vehicles and pedestrians using the same. The company may also own and operate steam and other vessels, and engage in a general navigation business. The capital is fixed at $500,000; and bonds to the extent of $30,000 a mile of the company's lines may be issued in addition to such other securities as may be necessary for the bridges or for the purchase of steamers, etc. (April, pg. 193).

Great Northern Ry., U.S.—Nothing in the way of an official announcement has been made in regard to the operation of the various lines which the Hill interests have under construction in Canada. The daily gossip in the newspapers is persistent in setting forth the view that the primary object of the construction of the lines is to divert the grain traffic of the Canadian Northwest from Canadian channels to Duluth, Minn. This view was brought up in the House of Commons, and led to considerable opposition to some of the bills respecting the lines. It was stated in the course of the discussion that there was room enough and traffic enough for all the lines, and that when the Hill lines had brought the share they obtained east to Winnipeg, it did not make any difference whether it went to the seaboard by the C.P.R., the Canadian Northern Ry., or the G.T. Pacific Ry. The newspapers say that J. J. Hill is too good a railway man to collect traffic for other lines to handle, and that if he is not going to build easterly, at least to Lake Superior, he must be going to switch the traffic into the United States; unless, as one newspaper suggests, he is going to construct a canal to give a 25 ft. navigation between Winnipeg and Lake Superior. A bill to provide a navigable waterway not only from Lake Superior to Winnipeg, but to the headquarters of the Saskatchewan River, was presented to the House of Commons within the last few years, but nothing came of it.

Of the various lines under construction, tracklaying is reported to have commenced on the Brandon, Saskatchewan and Hudson Bay Ry., at the International boundary north of St. John, N.D., and to be proceeding rapidly. Work is also being pushed on the Midland Ry. of Manitoba at various points, and also on what is understood to be the main line from Winnipeg to connect with the lines in British Columbia. Reports from British Columbia state that the work on the Vancouver, Victoria and Eastern Ry. is being pushed ahead as fast as possible. A number of the G.N.R. officials were at New Westminster and Vancouver recently in connection with Vancouver, Westminster and Yukon Ry., and Victoria Terminal Ry. and Ferry Co.'s affairs; and it is reported that the construction of a large hotel has been authorized at Vancouver, and of a station at New Westminster.

The Victoria Terminal Ry. and Ferry Co. was authorized at the last session of the British Columbia Legislature to construct a railway from near Mud Bay, on the mainland section of its line, to the International boundary near Blaine, and to connect it with the line of the Seattle and Montana Rd. It is also provided that the line may be leased or sold to the Vancouver, Victoria and Eastern Ry. and Navigation Co. (July, pg. 383).

Halifax and Eastern Ry.—The line which it proposed to construct under the charter of the Halifax and Eastern Ry., granted last session of the Nova Scotia Legislature, will have as its termini: Dartmouth, in the county of Halifax; Guysboro, in the county of the same name; New Glasgow, Pictou county; and Country Harbor, Guysboro county. The main line will run from Dartmouth to Guysboro, with a branch line from New Glasgow to Country Harbor. These two lines will effect a junction in the vicinity of Melrose in Guysboro county. The routes have not been finally settled, but preliminary surveys have already been made from Sunny Brae to Country Harbor, via the east branch of St. Mary's River, to Melrose; Melrose to Country Harbor Cross Roads; Country Harbor Cross Roads to Harbor Point, Country Harbor—a distance of 50 miles. There are now three survey parties in the field running lines as follows: From Thorburn to Melrose, via Blue Mountain and Garden of Eden; form Eden Lake across the west branch of St. Mary's River to Melrose; from Dartmouth, via the shore line, to the mouth of the Musquodoboit River, thence along the river valley to effect a junction with the west branch of the St. Mary's River. About 100 miles of preliminary lines have been run. It is hoped to start construction as soon as location plans have been approved. The provisional directors are H. A. Allan, A. A. Allan, of Montreal; and C. J. McColl, of Stellarton, N.S., who are acting until the formal organization of the company has been completed. (July, pg. 379).

Halifax and South-Western Ry.—We were recently advised that the grading on the main line had been finished, and all the bridge substructures, except at Mersey, Jordan and Clyde Rivers, completed. At these points the work is well under way, the piers and abutments at the latter two rivers being more than half completed. The steel spans are being shipped for all the bridges west of Liverpool, N.S. Track has been laid from Liverpool to about two miles west of Shelburne, about 53 miles in all, and good progress is being made with the work towards Barrington. About six miles of the additional track have been ballasted, and two steam shovels are employed in getting out ballast. The station buildings and tanks are being erected.

The Middleton and Victoria Beach section, 39.6 miles, has been completed, and has been inspected by Inspecting Engineer Johnson of the Department of Railways. The large pier which the Department of Public Works has erected at the Victoria Beach terminus, at a cost of about $100,000, is practically completed. (July, pg. 381).

Hamilton and Guelph Junction Ry.—Following are the officers and directors elected at the organization meeting: President, W. Vallance; Secretary, W. A. Holton; other directors: W. H. Biggar, W. J. Grant, R. Fearman, C. A. Birge, A. Turner, W. Wallace, and H. N. Kittson. The company is reported to have completed its surveys; arranged for an entrance into Hamilton by the C.P.R. and the Toronto, Hamilton and Buffalo Ry. tracks. It has made application to the Hamilton City Council for a right of way to the factory district, which branch it is proposed to operate by electricity. The company is proceeding under the powers conferred by an act passed last session of the Ontario Legislature. (April, pg. 193).

Hillcrest Ry. Coal and Coke Co.—The Dominion Parliament has passed an act incorporating a company with this title to construct a railway from Morrissey, via the Crow's Nest Pass, to Hillcrest Jct. on the C.P.R., thence to Cardston, Alta., with branches to Pincher Creek; to the coal deposits in tp. 5, range 1, west 5th meridian, and to the oil fields at Little Kootenay Lake, Alta. The provisional directors are: M. P. Davis, J. Thompson, Ottawa; C. P. Hill, Hillcrest, B.C.; W. L. Bell, Winnipeg, Man.; C. E. Ross, New York. (May, pg. 253).

Huntsville and Lake of Bays Ry.—Application has been made to the Ontario Railway and Municipal Board for the approval of its line, so that it may obtain the bonus of $10,000 voted for the construction of the line. The railway is owned by the Huntsville, Lake of Bays and Lake Simcoe Navigation Co., and extends from the north end of the Lake of Bays to the south end of Peninsula Lake, about 1¼ miles.

Intercolonial Ry.—The contract for the construction of the freight car repair shop at Moncton, N.B., has been let to E. A. Walberg, Montreal, and a contract for the planing mill has been let to Rhodes, Curry & Co., Amherst, N.S.

Work has been started near St. John in relaying the track between St. John and Moncton, N.B., with 80-lb rails.

The Dominion Parliament at its recent session passed the following appropriations for betterments, etc., on the line:

Original construction	$ 1,500
Strengthening bridges	236,500
" " (revote)	53,500
Improving gradients	4,000
Double-tracking parts of line	104,000
Additional sidings and spurs	35,720
Increased accommodation and facilities along the line	24,220
Fencing portions of line hitherto unfenced	16,000
Increasing water service	33,300
Coal handling machinery and appliances	40,000
Dredging dock, etc., Halifax, N.S.	5,000
Wharf at Dalhousie, N.B.	4,000
Raising wharf, Pictou Landing, N.S.	10,000
Water tank, etc., Glengarry, N.S.	6,500
Engine house, etc., Chaudiere Jct., Que.	39,500
Engine house, etc., Riviere du Loup, Que.	12,500
New station, Windsor, N.S.	3,000
Work at station, St. Moise, Que.	250
Moncton locomotive and car shops, and land purchase	540,000
To put railway between Indiantown and Blackville, N.B., in condition for operation	15,000
Diversion of line, St. Leonards Jct., N.B.	3,000
" " Mitchell, Que.	4,000
Extension to Sydney Mines, N.S.	31,700
Improvements at—	
Drummondville, Que.	12,750
Campbellton, N.B.	17,200
Newcastle, N.B.	11,000
Increased acccommodation at—	
St. Flavie, Que.	11,000
Levis, Que.	4,300
St. Philippe de Neri, Que.	250
Rothesay, N.B.	1,050
Memramcook, N.B.	1,350
Sackville, N.B.	16,000
St. John, N.B.	14,300
Halifax, N.S.	360,000
Truro, N.S.	84,000
Springhill Jct., N.S.	4,500
Sydney, N.S.	12,500
Stellarton, N.S.	10,500
Antigonish, N.S.	1,500
Pictou, N.S.	75,000
New Glasgow, N.S.	10,000

July, (pg. 381).

International Ry. of New Brunswick.—At the recent session of the New Brunswick Legislature an act was passed ratifying the letters patent incorporating the I. Ry. of N.B., and declaring that in the event of the Restigouche and Western Ry. Co. not redeeming the $150,000 of debentures issued in connection with the construction of the first 10 miles from Campbellton within three months, such 10 miles will become vested in the I. Ry. of N.B. A press report from Campbellton, N.B., July 15, stated that T. Malcolm, the contractor, had over 600 men at work on this line south-west of the Upsalquitch River, and was making rapid progress with the grading and tracklaying. (July, pg. 381).

Kamloops and Yellowhead Pass Ry.—W. A. Anderson, G. D. Curtis, W. M. Griffin, C. M. Merrit, R. I. B. Walker, of Vancouver, B.C., were incorporated by an act passed last session of the B.C. Legislature as a company with this title, and with all the usual powers, to construct a railway from Kamloops to Tete Jaune Cache, via North Thompson River, Canoe River, and McLellan's Creek, with branches, not to exceed in any one case 20 miles in length. The capital is fixed at

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$500,000, the bonding powers at $35,000 a mile, and the offices are to be at Vancouver.

The Dominion Parliament last session also passed an act incorporating the persons named above, with the exception of C. M. Merrit, with the same title and with the same powers. (Feb., pg. 63).

Kettle Valley Lines.—A contract has been let to W. P. Tierney, Nelson, B.C., for the construction of an extension from Grand Forks, B.C., along the north fork of the Kettle River to Franklin, at McKinley Mines, about 50 miles. The contract includes clearing, bridging, grading, tracklaying and ballasting. The work is generally heavy mountain work. It is proposed this year to complete the line to the Pathfinder Mine, about 16 miles.

At the last session of the Dominion Parliament an Act was passed increasing the capital to $3,000,000; authorizing the issue of bonds to the extent of $40,000 a mile; extending the time for construction of the authorized lines; and authorizing the construction of the following additional lines: From Midway to Hedley in the Similkameen Valley; from Hedley for 20 miles along Twenty-mile Creek; from a point between Midway and Hedley to Penticton. The company is also given running rights over the Columbia and Western Ry. from Grand Forks to Midway. (July, pg. 381).

The Kingston and Pembroke Ry. has been granted an extension of time, at the current session of the Dominion Parliament, for construction of its authorized lines of railway.

Margaree Coal and Ry. Co.—We have been advised that among those interested in this enterprise are: W. B. McDonald, Mining Engineer; A. G. Morrison, Barrister-at-law, and W. Roche, all of Halifax, N.S. (July, pg. 381).

Manitoulin and North Shore Ry.—At the last session of the Dominion Parliament an act was passed extending the time for the construction of the projected lines between Sudbury and Little Current, and between Owen Sound and Meaford, and authorizing the making of agreements with the Canada Central Ry., Algoma Central and Hudson Bay Ry., and the Ontario, Hudson Bay and Western Ry. (May, pg. 255).

Midway and Vernon Ry.—At the last session of the B. C. Legislature an act was passed extending the time for the construction of the company's authorized line from Midway to Vernon; giving power to construct a branch line from some point on its line to Penticton; and a line from Vernon by way of the Salmon River and The Ducks to Vernon. (July, pg. 381).

Moncton and Gulf Ry.—An act was passed last session of the New Brunswick Legislature incorporating a company with this title to construct a railway from Moncton to Bay Verte, near the boundary between New Brunswick and Nova Scotia. The offices are to be at Moncton, and the company has power to issue bonds to the extent of $10,000 a mile of constructed line. The provisional directors are: B. F. Pearson, M. Lodge, C. S. Hickman, E. T. Gaudet, J. Friel, W. O. Schwartz and G. Elliott.

Nakusp and Slocan Ry.—An act was passed last session of the Dominion Parliament granting an extension of time for the construction of the uncompleted portions of the company's projected lines.

Ontario Northern and Temagami Ry.—An act was passed last session of the Dominion Parliament authorizing the construction of a line from the projected main line in Dana or Hobbs tp., north-westerly to the Missinaibi River; extending the time for construction, and increasing the capital to $3,000,000. (April, pg. 193).

Ottawa, Brockville and St. Lawrence Ry.—The Dominion Parliament at its recent session passed an act extending the time for the construction of this projected railway from Ottawa to Brockville, Ont. (April, pg. 193).

Owen Sound and Meaford Ry.—The Dominion Parliament at its recent session voted a subsidy for the construction of a line between Owen Sound and Meaford, Ont. On a previous occasion when a subsidy was voted, it was in favor of the Manitoulin and North Shore Ry., which has a charter to construct a line between the points named. The surveys have been made by the M. and N.S. Ry., but no construction has been done. In 1904 local people obtained a charter to construct the line as the Owen Sound and Meaford Ry. Co., but the M. and N. S. Ry. was given a year to spend a certain amount of money on the work. The O.S. and M. Ry. has made a show of construction, and there was a public performance at the cutting of the first sod, July 1. The Mayor, J. T. Joyce; President J. McLauchlan and Vice-President B. Allan, of the O. S. and M. Ry., took part. (Dec., 1905, pg. 567).

Pacific and Atlantic Ry.—In 1886 an act was passed by the Ontario Legislature incorporating a company with this title for the purpose of constructing a line of railway from Glengarry to Sault Ste. Marie, Ont. Jas. Conmee, M.P., was one of the provisional directors of the company, which has had its power confirmed and amended in 1900, 1902 and 1905, by the Ontario Legislature. By an act passed last session of the Dominion Parliament the company is given a Dominion charter; the lines proposed to be constructed are declared to be for the general advantage of Canada; it is granted until 1908 to commence its lines and until 1911 to complete them; and is given power to make arrangements for amalgamation or traffic with the G.T.R., the C.P.R., the Manitoulin and North Shore Ry., the Algoma and Hudson Bay Ry., the Ontario, Hudson's Bay and Western Ry., and the Canada Central Ry. (June, pg. 327).

Pacific and Eastern Ry. Co.—The application made at the recent session of the Dominion Parliament for the incorporation of a company with this title for the purpose of constructing a railway from Victoria, along Vancouver Island, thence to the mainland, and through the Yellowhead Pass to Edmonton, was thrown out by the Railway Committee. The names mentioned in the bill as provisional directors were: Sir H. M. Pellatt, H. Blain, Toronto; B. F. Pearson, Halifax, N.S.; E. Tasse, J. F. Bethune, Ottawa. (April, pg. 193).

Prince Edward Island Ry.—At the last session of the Dominion Parliament the following sums were voted on account of betterments, etc.: Increase of accommodation at Charlottetown, $150,000, and increase of accommodation at Kensington, $1,800.

The Montague branch line was opened for traffic July 2. (May, pg. 255).

Quebec Bridge and Ry. Co.—The superstructure upon the south shore work of the Quebec Bridge has been completed, and the work on the central cantilever span has been started. It is expected that about 400 ft. of this span will be completed this season. The length of the bridge from the shore to the main pier is 740 ft., and there is about 7,000 tons of steel in the superstructure. Work is in progress on the north shore upon the railway connection with the bridge and the terminal station at Champlain Market. (July, pg. 381).

Quebec Central Ry.—A contract has been let to Clarke Gordon, Sherbrooke, for the grading of the first part of the Chaudiere extension, authorized to be constructed last session of the Quebec Legislature. This will extend from Beauce Jct. to St. George, about nine miles. The company will do its own tracklaying. (July, pg. 381)

Quebec and Lake Huron Ry.—An act was passed last session of the Dominion Parliament authorizing an extension of time for the construction of the projected railway from Quebec to Lake Huron, near the mouth of the French River. (May, pg. 131).

Quebec Midland Ry.—J. E. Hardman, W. G. Wilson, R. B. Owens, H. C. Mitchell, Montreal; F. H. Chrysler, Ottawa, were incorporated by an act passed last session of the Dominion Parliament as a company with this title, and with all the usual powers, to construct a railway from the Ontario-Quebec boundary north of Lake Abitibi easterly and northerly to the west shore of Lake Mattagami, Que. (May, pg. 255).

Reid-Newfoundland Ry.—A new through siding is being put in at Donovan's, Nfld.; a new station and freight shed has been erected at Crabbs; a new station is being built at Stephenville; and 15 houses are being put up at different points for the accommodation of sectionmen. It is proposed to erect a freight shed at Woodfords, and to repair the wharf at Placentia. (July, pg. 381).

St. Mary's and Cherry Creek Ry.—An act was passed last session of the B.C. Legislature incorporating O. and J. H. Staples, of Bayard, B.C., as a company with this title, and with all the usual powers, to construct a railway from some point on the North Star Branch of the B.C. Southern Ry. near Bayard to Cherry Creek, with a branch from lot 341, to west of lot 339.

St. Mary's River Bridge Co.—The Dominion Parliament last session passed an act extending the time for the construction of the proposed bridge over the St. Mary's River at Sault Ste. Marie, Ont., in connection with the Algoma Central and Hudson Bay Ry., and the allied industrial concerns. (June, pg. 327).

St. Mary's Valley Ry.—J. Breckenridge, P. Lund, and Jas. A. Harvey, of Cranbrook, B.C., were given an act last session of the B.C. Legislature with the title of the St. Mary's Valley Ry. Co., for the purpose of constructing a railway from near Marysville, on the North Star Branch of the B.C. Southern Ry., to near Crawford Bay, on Kootenay Lake, following the St. Mary's River valley.

St. Maurice Valley Ry.—We have been advised that the grading has been practically completed on the first 16 miles from Three Rivers, and that track has been laid on 13 miles. Good progress is being made with the bridgework, which it is expected to have completed by Nov. 15, and the line, it is hoped, will be completed and ready for operation as far as Shawinigan Falls, Dec. 31.. The line, we are advised, will be operated by the St. Maurice Valley Ry. Co. (Feb., pg. 65).

Schomberg and Aurora Ry.—The Dominion Parliament last session passed an act extending the time for the construction of the company's authorized lines, and authorizing the construction of branch lines to Nottawasaga Bay; to Bowmanville, and from Bond Lake to Barrie and Sutton, Ont. (Feb., pg. 65).

Shediac and Coast Ry.—An act reviving the act of incorporation of this company, and confirming the power conferred to construct a railway from near Point du Chene to Shemogue, was passed at the recent session of the New Brunswick Legislature. The act is not to go into effect until the Government is satisfied of the financial ability of the company to construct the line.

At a meeting of shareholders at St. John, N.B., June 30, P. J. Venoit stated that a firm of Toronto solicitors had asked whether they could get an option on the building of the line. Nothing was said as to whom the firm were, but the matter was referred to a committee consisting of Judge Truman, President; A. Skinner. Jas. McQueen is Secretary of the company. (April, pg. 195).

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South-East Kootenay Ry.—T. Davis, A. Farmer, C. B. Damell, were named as the provisional directors of the South-East Kootenay Ry. Co., for the incorporation of which an act was passed last session of the B.C. Legislature. The company is authorized to construct a railway from the International boundary near the Flathead River to near McGillivray, on the Crow's Nest Pass line of the C.P.R., with branches not exceeding 20 miles in any one instance. The usual powers as to telegraph and telephone lines, the carrying of express matter, and the making of agreements with other companies, are conferred. The offices are to be at Victoria; the capital is $5,000,000, and the company may issue bonds to the extent of $35,000 a mile of constructed line. (Dec., 1905, pg. 561).

Southern Central Pacific Ry.—By an act passed last session of the Dominion Parliament it is provided that the provisional directors of the company shall be Jas. Whalen, Port Arthur, Ont.; P. F. Cronin, R. A. Hazlewood, Toronto; B. W. Folger, Kingston, Ont.; and J. W. McLennan, New York, instead of those mentioned in the act of 1903. In addition to the lines therein authorized the company may construct a branch from the main line near Skaist River, northerly crossing the South Thompson River near Kamloops, B.C., thence north-easterly, passing Myrtle Lake, through the Yellowhead Pass, and through the provinces of Alberta and Saskatchewan to connect with the main line near Cold Lake. (May, pg. 255).

Southern Okanagan Ry.—The B.C. Legislature last session passed an act incorporating a company with this title, and with all the usual powers, for the purpose of constructing a railway from Penticton southerly to the International boundary. The provisional directors named are: R. B. White, W. T. Shatford, Penticton, B.C., and R. Martin, Vancouver.

Temiscouata Ry.—The New Brunswick Legislature at its last session passed an act continuing the subsidy voted in 1901 in aid of the extension of the St. Francis branch from the present terminus at Connors to the Quebec-New Brunswick boundary. The work is to be commenced within two years and completed within four years. (See Quebec Central Ry., July, pg. 381).

Temiskaming and Northern Ontario Ry.—The Commissioners have let a contract to Wyse & Middlemist, Toronto, to erect coal chutes and trestles at North Bay and Englehart; a telegraph and telephone line from New Liskeard to Englehart; a telegraph line from Englehart to McDougal's Chute, 65 miles. The Commissioners have also let a contract to the Forest City Paving Co., London, Ont., to erect a 12-stall roundhouse and machine shop at North Bay, and an eight-stall roundhouse at Englehart. The Commissioners also propose to construct three spur lines, one from Haileybury station to the wharf on Lake Temiskaming, about 1½ miles; the second from mileage 100 to Kerr's Lake, about five or six miles, and the third from mileage 140 to Long Lake, about six miles. The Commissioners were given power last session of the Ontario Legislature to construct spur or branch lines as required, not to exceed 10 miles in any one case. (May, pg. 257).

Thorold and Lake Erie Ry.—The Dominion Parliament last session passed an act extending the time for construction of this projected railway. (April, pg. 195.)

Toronto Union Station Co.—An act was passed last session of the Dominion Parliament incorporating a company with this title for the purpose of constructing a Union Station at Toronto. The provisional directors are: Sir T. G. Shaughnessy, President C.P.R.; D. McNicoll, Vice-President C.P.R.; J. W. Leonard, Assistant General Manager Eastern Lines C.P.R.; C. M. Hays, Second Vice-President G.T.R.; E. Fitzhugh, Third Vice-President G.T.R.; F. H. McGuigan, Fourth Vice-President G.T.R. The capital stock is fixed at $2,000,000, the offices being at Toronto, and the number of directors six, one or more of whom may be paid officers of the company. Power is given to erect an hotel in connection with the station, to conduct a transfer service and a telegraph and telephone business. The G.T.R. is empowered to sell the Union Station property, and the C.P.R. is authorized to convey certain lands in Toronto to the company, and upon due execution of conveyances the company is to have all the powers and authority vested in the G.T.R. by the order of the Board of Railway Commissioners dated Feb. 23, 1905. The company may make agreements with other railways for the use of the Union Station; issue bonds to the extent of $3,000,000; and make rules and regulations for the management of the station. The construction of the station is to be completed by Feb. 28, 1908. The C.P.R. and the G.T.R. are given power to subscribe for shares in the company to the extent of one-half each of the total capital stock and jointly or severally to guarantee the bonds issued. The order of the Board of Railway Commissioners dated Feb. 23, 1905, is attached to the act as a schedule. (May, pg. 257).

Vancouver, Fraser Valley and Southern Ry.—E. B. Hermon, C. H. Macaulay, V. Laursen, Vancouver, B.C., were incorporated as a company by an act passed last session of the Dominion Parliament, with this title for the purpose of constructing a railway from Vancouver to New Westminster, thence to the International boundary at Blaine, Wash.; from this line south of the Fraser River, along the Fraser River valley easterly to Chilliwack; and from the line south of the Fraser River westerly to Delta, B.C. The company may enter into agreements with, or acquire the property and rights of other companies; it may connect with any line in the State of Washington, and arrange for the running of its cars across such lines. (April, pg. 195).

Washington County Ry.—In 1855 an act was passed by the New Brunswick Legislature, incorporating the Lewy's Island Ry. Co., to construct a railway from Upper Mills, St. Stephen, along the left bank of the St. Croix River to Sprague's Mills in the same parish. The name of the company was changed by an act passed by the Legislature in 1870 to the St. Croix and Penobscot Ry. This company subsequently mortgaged the line to the Washington County Ry., which company operates the line as its Princeton branch. At the recent session of the New Brunswick Legislature, an act was passed declaring the Washington County Ry. to be a corporation and possessed of all the railways, franchises, rights and properties of the St. Croix and Penobscot Ry., and subject to the New Brunswick Ry. Act, in respect of such railway. An office has to be maintained in St. Stephen. The line is 4.75 miles in length.

White Horse and Alsek Ry.—By an act passed last session of the Dominion Parliament an extension of time was granted for the construction of this projected railway for a further period of five years. (Feb., pg. 65).

Windsor, Chatham and London Ry.—An act was passed last session of the Dominion Parliament incorporating a company with this title, for the purpose of constructing a railway from Windsor to Chatham, and thence to London, Ont., with power to operate telegraph and telephone lines, and to make agreements for the operation of the line, and for other purposes with the G.T.R., the C.P.R., the Lake Erie and Detroit River Ry., the Canada Southern Ry., the Windsor, Essex and Lake Shore Rapid Ry., and the company now constructing the tunnel under the Detroit River. The provisional directors named in the act are: J. and W. T. Piggott, W. E. McKeough, Chatham, Ont.; J. Brien, Essex, Ont.; W. C. Crawford, W. J. Moffatt, Tilbury, Ont.; T. E. Robinson, Detroit, Mich., and E. A. Tennis, Philadelphia, Pa. The latter is the President of the company now engaged in constructing the electric railway known as the Windsor, Essex and Lake Shore Rapid Ry. (April, pg. 195).

Yonge St. Bridge, Toronto.—The City Council having approved of the recommendation of the Board of Control to accept the suggestion of the C.P.R. and the G.T.R. to pay $100,000 upon completion of the bridge at the waterfront of Yonge St., Toronto, and the other conditions mentioned, the city's bill to compel the erection of the bridge was withdrawn from consideration in the House of Commons. (July, pg. 381).

Accidents on Ontario Railways.

The Ontario Railway and Municipal Board has made the following regulations under "The Ontario Railway Act, 1906," sec. 237:

Every company upon the happening of an accident shall give to the Board notice thereof in writing by delivering the same at the office of the Board in Toronto or by mailing it, postage prepaid, in a registered letter addressed to the Board. Such notice shall contain a statement signed by a duly authorized officer of such company, setting forth the information and particulars hereinafter mentioned. Such statement shall be divided into paragraphs, each of which shall include and refer to one (or one group) only of the numbered particulars hereinafter mentioned, and the paragraph referring to each respective numbered particular shall bear the number corresponding to the number hereinafter given for each such particular. The numbers of paragraphs and the particulars to which each shall refer as aforesaid, are as follows: 1. Name or names of company or companies concerned in accident. 2. Number of train, engine, car or motor. 3. Date and time of accident. 4. Nature of accident. 5. Exact location. 6. Name in full, address and legal addition of each person injured or killed. 7. Age. 8. Married or single. 9. Passenger, employe or other. 10. If employe, length and nature of service with dates and periods of different occupations (if more than one). 11. If employe, character, experience, skill and fitness with respect to occupation at time of accident. 12. How engaged at time of accident, and how long on duty. 13. Cause of accident, how same occurred, with full particulars and details and diagram if required. 14. Persons in charge, with full names, addresses and the particulars referred to in paragraphs 10, 11 and 12. 15. Result to person and particulars of injury. 16. Result to property, including amount of damage. 17. Names and addresses of all persons present at, or eye witnesses of, the accident. 18. What investigation (if any) and result of same. 19. Verdict (if any). The Board reserves the right to require such further and other details, particulars, maps, plans, profiles, documents, models and information or illustration of any kind as the nature of the accident and a full understanding thereof may suggest or require. In pursuance of subsec. 2 of sec. 237 of the Act, the Board declares that all such information so given is privileged.

H. E. Watkins, General Eastern Canadian Agent, Great Northern Railway, U.S.A., writes: "I find The Railway and Marine World very interesting and profitable in a business way."

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Machinists' Hammers, Drilling Sledges, Spike Mauls, Track Chisels, Nail Hammers, Bench Axes, Etc.

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Railway Rolling Stock Notes.

The Dominion Coal Co., Glace Bay, N.S., has ordered 10 mining cars of seven tons capacity from the Canada Car Co., Montreal.

The Temiskaming and Northern Ontario Ry.'s private car Temagami is being equipped with acetylene gas apparatus by the Crossen Car Manufacturing Co., Cobourg, Ont.

The Intercolonial Ry., between June 14 and July 18, received 11 Hart Convertible Dump Cars and three cabooses from Rhodes, Curry & Co., Amherst, N.S.

Six locomotives for the Minneapolis, St. Paul and Sault Ste. Marie Ry. from the United States, formed part of a freight train which passed over the New York and Ottawa Ry., crossing the St. Lawrence at Cornwall, Ont., recently.

The Quebec Central Ry. has received six refrigerator cars from Rhodes, Curry & Co., Amherst, N.S. These cars were 36 ft. 9¾ in. long outside; 29 ft. 6 in., inside; 7 ft. 8¼ in. high inside; fitted with Simplex bolster and brake beams.

The Canadian Locomotive Co., Kingston, Ont., has completed delivery of the 15 locomotives ordered by the C.P.R.; four locomotives ordered by the Temiskaming and Northern Ontario Ry., and two locomotives ordered by the Quebec Central Ry.

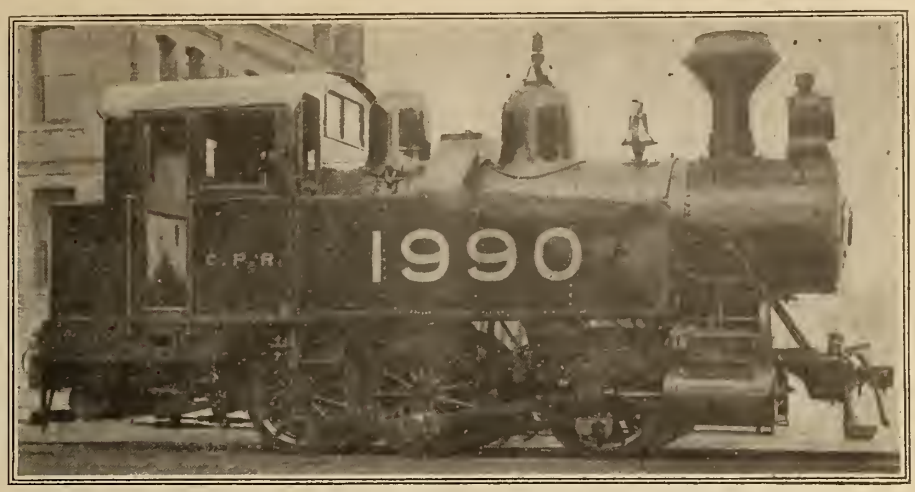
An unconfirmed press report states that the G.T.R. has placed a further order for 20 passenger locomotives with the American Locomotive Co., and that 10 will be built at the company's Schenectady works, and the other ten by the Locomotive and Machine Co. of Montreal.

The Canadian Northern Ry. is receiving deliveries of box cars from Rhodes, Curry & Co., Amherst, N.S.; it has also received four out of six second-class tourist cars ordered from that firm; and has received the 50 stock cars recently ordered from the Crossen Car Manufacturing Co., Cobourg, Ont.

The C.P.R., between June 13 and July 19, placed orders for the following rolling stock: 21 first-class cars, five dining cars, five suburban cars, 10 baggage and express cars, 100 box cars, 75 flat cars, 30 ballast cars, 25 box baggage cars, 15 stock cars, and 13 switching locomotives, at its Angus, Montreal, shops.

The Temiskaming and Northern Ontario Ry. has placed an order for four first-class coaches, and four baggage and express cars with the Crossen Car Manufacturing Co., Cobourg, Ont.; five second-class cars with Rhodes, Curry & Co., Amherst, N.S.; and has purchased a second-hand baggage and mail car in the U.S.

The Dominion Parliament last session voted $625,290 for rolling stock; $21,000 for fitting air brakes to freight cars; $15,000 and a revote of $30,000 for exchanging drawbars to freight cars; and $14,000 to provide side ladders on box cars for the Intercolonial Ry. It also voted $25,000 for new rolling stock for the Prince Edward Island Ry.



SWITCHING LOCOMOTIVE BUILT BY CANADIAN PACIFIC RAILWAY.

The 1,000 box cars which the C.P.R. is having constructed at its Angus shops, Montreal, will have a capacity of 30 tons, and will have wood bodies and underframes. The inside dimensions are length, 36 ft.; width, 8½ ft.; height, 8 ft. The special fittings include Simplex body and truck bolsters; Susemihl roller side bearings, and Westinghouse air brakes.

The C.P.R., between June 13 and July 19, received the following rolling stock: five locomotives from the Canadian Locomotive Co., Kingston, Ont.; five locomotives, two sleeping cars, 12 first-class cars, five suburban cars, one baggage-commissariat car, 419 stock cars and 26 refrigerator cars from its Angus, Montreal, shops; and six vans from its Farnham, Quebec, shops.

The Canadian Northern Ry., between June 19 and July 20, placed orders for rolling stock as follows: 250 box cars, 30 tons capacity, with Rhodes, Curry & Co., Amherst, N.S.; six first-class day coaches, five mail and express cars, and 100 box cars, 30 tons capacity, with the Crossen Car Manufacturing Co., Cobourg, Ont.; and 200 box cars, 30 tons capacity, with the Canada Car Co., Montreal.

The C.P.R. is building at its Angus shops, Montreal, three Rodger ballast ploughs with double sets of scoops, so that the plough can be operated in either direction without turning the car around. The scoops are so arranged that they can be raised or lowered by means of a hand wheel and screw arrangement. The cars are 36 ft. 8 in. long, and the special fittings include Simplex bolsters and brake beams with Susemihl side bearings.

The specifications for the three observation cars which the C.P.R. is having constructed at its Angus shops, Montreal, provide as follows: length over frame, 56 ft.; width over frame, 9 ft. 10½ in.; capacity, 34 in main room with eight in each of two cupolas; axles and brasses, 4¼ by 8 in.; Simplex brake beams with adjustable heads; Westinghouse air brakes; plate glass skylights; revolving chairs, and reversible seats in main room and fixed seats in cupola.

The C.P.R. Pacific type locomotive 1102, an illustration of which is given on this page, is one of the latest built at Angus shops. It is exactly the same as the other G.1. locomotives, dimensions, etc., of which were given in our July issue, pg. 391, except that it has the Young-Mann-Averill valves and valve motion, and that they are of the roller type. This valve gear and valve system is of recent invention, and this is the first locomotive built in Canada equipped with the same.

The Locomotive and Machine Co. of Montreal has completed the delivery of 10 ten-wheel passenger locomotives to the G.T. Pacific Ry.; and has ready for delivery three Pacific type passenger locomotives for the Canada Southern Division of the Michigan Central Rd.; one switcher each for the Dominion Iron and Steel Co., Sydney, N.S., and the Canada Car Co., Montreal. It will begin delivery Aug. 1, of the 55 Richmond compound consolidation locomotives on order for the G.T.R.

The Board of Railway Commissioners has issued the following order: In the matter of sub-sec. 2, of sec. 211 of the Railway Act, 1903, respecting the equipment of box freight cars with ladders on trains of railway companies operating throughout the Dominion. Upon the report of the Inspector of Accidents of the Board, dated April, 1906; and upon reading the communications and documents on file with the Board, the Board orders that the time fixed for the equipment of all box freight cars with ladders, as provided for in said sub-sec. 2, is hereby extended until Jan. 1, 1907.

The 15 ten-wheel passenger and freight locomotives for which the Canadian Northern Ry. has placed an order with the Canadian Locomotive Co., Kingston, Ont.,

PACIFIC TYPE LOCOMOTIVE CLASS G.-I, CANADIAN PACIFIC RAILWAY.

C. P. R.
NEW SHOPS
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Showing 34 metal frame Skylights 12 ft. 6 inches by 72 ft. on roof of Locomotive Building . . .

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RUSSELL INSPECTION CAR NO. 12
"THE CAR THAT GOES"

Has four wheels of equal size with engine midway between the rails.
Can be turned or removed from the track easily and quickly by one man, handling from the rear.
Weighs only 300 lbs. yet is strong and durable.
Can be readily lifted and carried by two men.
Can be run at any speed required up to 30 miles per hour.
Can be quickly taken apart for storage in baggage car.
Carries comfortably three passengers and luggage.
Is guaranteed to take any railway grade with ease.
It is just the simple and easily operated car that RAILWAY MEN have been looking for.

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for delivery in the spring of 1907, will have the following general dimensions: cylinders, 18 by 24 in.; driving wheel base, 13 ft. 6 in.; total wheel base of engine, 23 ft. 8 in.; driving wheels, 63 in. diameter; rigid wheel base, 13 ft. 6 in.; total wheel base of engine and tender, 50 ft. 9¼ in.; weight in working order about 135,000 lbs.; weight on drivers, about 107,000 lbs.; weight of tender in working order about 122,000 lbs.

C.P.R. tank locomotive 1990, of which an illustration is given on pg. 459, has been rebuilt at the Angus shops, Montreal, from a 6-wheel tender switching engine. Following are some of the principal dimensions, etc.: Class T8; working pressure, 140 lbs.; firebox width, 2 ft. 11 ins.; firebox length, 6 ft. 11½ ins.; no. of tubes, 156; length of tubes, 8 ft. 0 15-16 in.; diameter of tubes, 2 in.; heating surface tubes, 659 sq. ft.; heating surface firebox, 84 sq. ft.; heating surface total, 743 sq. ft.; grate area, 21 sq. ft.; cylinders, 17 x 24 in.; driving wheels, 51 in.; weight on drivers, 105,000 lbs.; weight total engine, 105,000 lbs.; water imp. gals., 1,385; coal tons, 1¾.

The G. T. Pacific Ry. has despatched from Montreal three trains of rolling stock and other equipment for use on its construction work in north-western Ontario and Manitoba. The first train consisted of 26 cars as follows: four workmen's sleeping cars, two steam shovels, two flat cars with steam shovel equipment, five workmen's dining cars, two office cars, four tool cars, four store cars and three locomotives. The second train consisted of 58 flat cars and two store cars; and the third of 30 flat cars, one dining car, two store cars and one tool car. The first two trains were despatched July 7, and the third July 12. This is, we are advised, part of the first consignment of 300 cars.

Qu'Appelle, Long Lake and Saskatchewan Railroad and Steamboat Co.

The ownership of this company was vested in Osler and Hammond, Toronto; the estate of the late Hon. D. MacInnes, of Hamilton, Ont., and Hon. W. Pugsley of St. John, N.B., each having a third interest. Some time ago an option was obtained on the property, which was believed to be in the interest of the Grand Trunk Pacific Ry., but it was not taken up. Then an option was given to the C.P.R. Co., which is now operating the line, but that also fell through, and the property and franchises have been sold to the Canadian Northern Ry. Co. A press despatch dated London, Eng., July 20, states that a circular has been issued by the Bondholders' Committee there, setting forth that the negotiations carried on with the C.P.R. having failed, the offer of the Canadian Northern Ry. was accepted. The terms of purchase, mentioned in the circular are that Mackenzie, Mann & Co. give in exchange for every existing £100 6% bond £107 in Qu'Appelle, Long Lake & Saskatchewan Rd. & Steamboat Company 4% debenture stock having 20 years to run, principal and interest being guaranteed by the Canadian Northern Ry. Co. The debenture stock must not exceed $1,050,000 in all. The closing of the transaction with the bondholders was effected after the arrival in England of W. Mackenzie, President Canadian Northern Ry., who returned to Toronto July 26.

The line extends from Regina to Prince Albert, Sask., 253.96 miles, all of which, together with the 13.29 miles of sidings, is laid with 56 lb. steel rails. The radius of the sharpest curve is 1,146 ft., and the heaviest gradient is 65 ft. to the mile. There are 40 grain elevators on the line. The capital stock subscribed and paid up is $201,000, and 6% mortgage debentures redeemable Aug., 1911, to the amount of $3,809,140, were issued. There are considerable arrears on account of the interest of these bonds, amounting Nov., 1905, to $1,422,713. The total cost of the line is given in the report of the Department of Railways at $2,539,600. Under subsidy acts the company obtained 128,000 acres, and 1,447,314 acres of land, of which the 128,000 acres were sold for $121,600, and the second area was disposed of to enable the company to finance the construction of the line. Of this area 998,200 acres have been granted, and the remaining 449,114 acres are retained by the Government against the cash subsidy of $80,000 a year. This was granted under the authority of a special act passed in 1889, in consideration of the company carrying men, supplies, materials and mails for the Government, free for a period of 20 years. This subsidy has been paid over to the trustee for the bondholders. The line has always been operated by the C.P.R., first until 1896, under an agreement by which the C.P.R. took all the receipts, and paid all charges for operation; until 1901, under an agreement by which the C.P.R. received the actual cost of operating the line; and since then from time to time under the same conditions, but without a lease, and it is understood that the arrangement is terminable on three months' notice.

At the last session of the Dominion Parliament an act was passed authorizing the directors to issue, with the approval of the shareholders, debenture stock to the amount of $20,000 a mile in lieu of bonds, which the company is now authorized to issue, payable either in currency or sterling. The new stock will rank after existing charges, penalties under the Railway Act, 1903, and working expenses, and shall be charged against the railway as at present constructed, with all betterments hereafter made thereon, and all other property of the company except the land and cash subsidies granted by special acts. The new debentures may be issued for the purpose of acquiring, redeeming or exchanging the bonds or other existing obligations of the company.

Following is the report for the year ended Nov. 30, 1905, issued over the signature of H. C. Hammond, President:

The gross earnings, after deducting earnings from Government service, were $632,203.73, against $470,838.19 for the previous year, an increase of 34.27%. The total expenses were $423,652.54, against $487,107.93 for the previous year, a decrease of 13.03%. The percentage of expenses to earnings was 67.01%, compared with 103.46% for the previous year. The net profit was $208,551.19, against a loss of $16,269.74 for the previous year. Earnings from passenger traffic, including Government service, were $240,125.68, against $147,447.73 for the previous year, an increase of 62.86%. Freight, express, mail and miscellaneous earnings, including Government service, were $411,662.39, against $327,781.08 for the previous year, an increase of 25.59%. The increase in gross earnings is very satisfactory and indicates to what extent the volume of traffic on the railway has increased. The decrease in expenses was owing to the fact that during the previous year very large payments were necessary due to the interruption of traffic and damage done by freshets. During the year the company had very little trouble with snow, and the expenditure on this account was very light. Work on the permanent bridge at Saskatoon is still going on. The expense in connection with this bridge has been charged by the C.P.R. Co. to a special account. Up to the end of the company's year it had paid out on this account $83,539.47, and the amount expended up to Feb. 28, 1906, was $110,176.28. The C.P.R. Co. has funds on hand from net earnings to Nov. 30, 1905, amounting to $209,554.66 out of which to meet this expenditure. The directors are of the opinion that the company may look forward to a very satisfactory traffic during the present year.

ASSETS.

Cost of road	$4,010,140.00
Bonds held by company re McDowall's mill siding	11,253.02
Sundry debtors	7,972.56
Interest deferred	1,422,713.67
Canadian Pacific Railway Co	209,554.66
Cash in bank	26,100.06
	$5,687,733.97

LIABILITIES

Capital stock paid up	$ 201,000.00
First mortgage bonds £782,700	3,809,140.00
Coupons due and not paid	1,690.55
Interest unpaid	1,422,713.67
Sundry creditors	267.56
Profit and loss account	252,922.19
	$5,687,733.97

EARNINGS

Balance brought forward		$ 43,443.31
Passenger	$240,125.68	
Freight	389,100.02	
Express	8,274.97	
Mail	13,632.40	
Miscellaneous	655.00	
	$651,788.07	
Less amount of Government service included in above	19,584.34	
		$632,203.73
		$675,647.04

OPERATING EXPENSES

General expenses	$ 4,533.69
Conducting of transportation	185,693.38
Management expenses	3,390.79
Maintenance of way and structures	175,211.87
Maintenance of equipment	54,822.81
	$423,652.54
Balance carried down	251,994.50
	$675,647.04

Balance brought down		$251,994.50
Government subsidy for year		80,000.00
Interest on bonds held by Co		474.61
Interest allowed on deposit		845.00
		$333,314.11

INTEREST ACCOUNT

To £1.1/0 paid in cash on account Feb. 1, 1905, coupon	£8 218.7/0	
To £1.1/0 paid in cash on account Aug. 1, 1905, coupon	£8,218.7/0	
	£16,436.14/0	$79,991.92
Expenses re service of coupon and other expenses (London)		400.00
Balance carried forward		252,922.19
		$333,314.11

Master Mechanics' Convention.—The annual convention was held at Atlantic City, N.J., June 18 to 20, and was largely attended. The Secretary's report showed the membership to be: Active members, 777; associate members, 17; honorary members, 40; total, 834; and the Treasurer's report showed a balance on hand of $1,870.79. A number of changes were made in the constitution, affecting the requirements for membership in several particulars, and the length of service of the officers. The reports of the several committees were read and discussed at considerable length and a number of special subjects were talked about by the members. Officers were elected as follows: President, J. F. Deems, New York, General Superintendent Motive Power, Railway Shops and Machinery, New York Central lines; First Vice-President, W. McIntosh, Jersey City, Superintendent Motive Power, Central Rd. of New Jersey; Second Vice President, H. H. Vaughan, Montreal, Assistant to Vice-President, C.P.R.; Treasurer, A. Sinclair, New York; Secretary, J. W. Taylor.

The Dominion Engineering and Construction Co. has been registered in Ontario under the act respecting extra-provincial companies, its president, Randolph Macdonald, being appointed its attorney.

START OF DOUBLE DAILY

TRANSCONTINENTAL SERVICE

FROM

MONTREAL and TORONTO

TO THE

NORTHWEST and COAST

EVERY DAY AFTER 6 MAY

Full Information from
C. B. FOSTER
District Passenger Agent
TORONTO

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THE ALGOMA STEEL CO., LIMITED

SAULT STE. MARIE, ONTARIO

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MONTREAL

DRUMMOND, McCALL & CO.
GENERAL SALES AGENTS

MAINLY ABOUT PEOPLE.

F. Grundy, Vice-President Quebec Central Ry., will sail from England, Aug. 16, for Canada.

H. Evans, C.P.R. train despatcher Souris, Man., was married there June 29, to Miss L. Janson.

Wm. Spry, C.E. and O.L.S., died at Toronto July 4, aged 75, and was buried at Owen Sound.

Jas. W. Mulligan, formerly private secretary to Sir Wm. Van Horne, died at Montreal recently.

Sir C. Rivers-Wilson, President G.T.R., and Lady Rivers-Wilson arrived in Montreal from England, July 26.

G. M. Lang, formerly Resident Engineer C.P.R., at Winnipeg, Man., is practising at Calgary, Alta., as an architect.

H. Swinford, general agent Northern Pacific Ry., Winnipeg, returned there from a holiday trip to Great Britain, June 23.

W. P. Martin, C.P.R., Montreal, was elected Vice-President of the American Association of Local Freight Agents at its recent convention.

A. W. Barber, Superintendent Ontario Division C.P.R. Telegraphs, and Miss Barber have been visiting Murray Bay and the Saguenay.

R. E. Speakman, having been appointed City Engineer of Calgary, Alta., has resigned his position as City Engineer of St. Catharines, Ont.

H. F. Sharp, who has been appointed Registrar for South Perth, was for a number of years G.T.R. town ticket agent at St. Mary's, Ont.

H. G. Nicholls, son of F. Nicholls, Managing Director Canadian General Electric Co., was married at Toronto June 27 to Miss N. H. Watson.

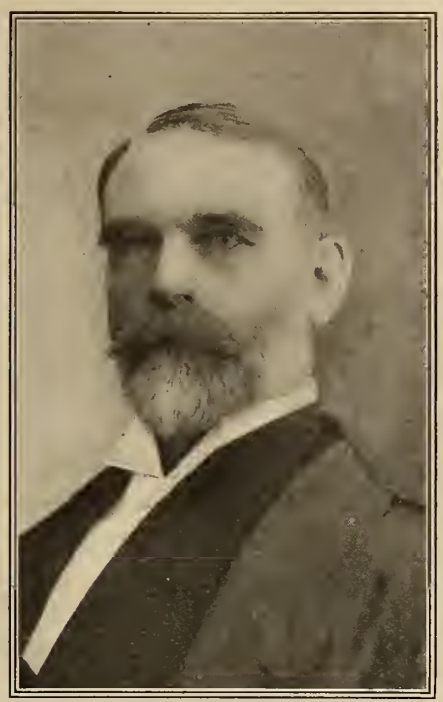
H. Lambkin, son of J. B. Lambkin, assistant General Passenger Agent Intercol-

A. B. INGRAM
Vice-Chairman, Ontario Railway and Municipal Commission.

onial Ry., was married at Ottawa June 27, to Miss McCallum.

Miss Creelman, daughter of A. R. Creelman, K.C., General Counsel C.P.R., was presented at Court at St. James Palace, London, Eng., June 29.

H. F. Ball, Superintendent of Motive Power, Lake Shore and Michigan Southern



J. LEITCH, K.C.
Chairman, Ontario Railway and Municipal Commission.

Ry., has been appointed Vice-President American Locomotive Co.

Mrs. Sinclair, wife of Angus Sinclair, contractor for a considerable portion of the James Bay Ry., is spending the summer on Georgian Bay with her family.

The summer residence of Sir Wm. Van Horne at St. Andrew's, N.B., was entered by burglars during the winter and about $1,000 worth of plate, etc., were taken.

J. C. Royce, S.B., Toronto, has gone to Europe to investigate the recent development of the gas engine and gas production plants, and also the independently driven railway motor cars.

J. Barr, heretofore Mechanical Superintendent Dominion Iron and Steel Co., Sydney, N.S., has been appointed General Manager of the Tennessee Coal and Iron Co., Ainsley, Ala.

Jas. W. Ripley, General Superintendent of the locks at Sault Ste. Marie, Mich., has been appointed special engineer for work in designing and constructing locks on the Panama canal.

Russell Sage, who died in New York, July 23, was President and practically owner of the New Brunswick Southern Ry., a line extending from St. John to the Maine boundary at St. Stephens.

L. K. Jones, Secretary to the Department of Railways and Canals, has been made a member of the Imperial Service Order, an Imperial decoration conferred for distinction in public service.

A. E. Dancey, of the C.P.R. advertising department, Montreal, was presented with a cut glass table service by his fellow-employes, on the occasion of his marriage to Miss Walton June 27.

N. A. Rhodes, of Rhodes, Curry & Co., accompanied by E. N. and Mrs. Rhodes, recently returned to Amherst, N.S., from an extensive automobile trip through Nova Scotia and New Brunswick.

W. C. Groening, general foreman Pere Marquette Rd. shops, St. Thomas, Ont., was presented with a gold watch chain by the men in his department recently, on the occasion of his 44th birthday.

Jas. McKenna, Travelling Passenger Agent C.P.R., has been presented with amber and gold cigar and cigarette holders by Charlottetown, P.E.I., friends, on being transferred from St. John, N.B., to Montreal.

A. R. Stacey, chief clerk to the Master Mechanic Michigan Central Rd., St. Thomas, Ont., and Mrs. Stacey, on returning from their wedding trip July 3, were presented with an address and a cut glass water set.

Miss Heloise Keating, daughter of E. H. Keating, C.E., ex-Manager Toronto Ry., has secured first prize for harp playing and the prize of Queen Marie Henrietta at the annual concours of the Brussels Conservatoire, where she has been studying.

E. O. Belleine, chief clerk of the Canadian Northern Ry. stores department, Winnipeg, Man., was presented with a set of silver by the staffs of the stores and mechanical departments, on the occasion of his marriage June 26 to Miss A. Allwood.

W. F. Tye, formerly Chief Engineer C.P.R., has been presented with an address and a grandfather's clock by the engineers of the company's construction department west of Lake Superior, of which he had charge prior to being removed to Montreal.

D. Hobbs, the C.P.R. Customs entry clerk, who was recently arrested in New York on a charge of defrauding the Customs Department of about $40,000, was taken to Montreal, July 25, and on being brought into court, pleaded not guilty. He is now under remand.

E. J. Travers, who has been appointed Manager British Columbia Car Service Bureau at Nelson, B.C., was born in Hamilton, Ont., Mar. 31, 1872, and previously served in various capacities with the G.T.R., C.P.R., Leyland S.S. Co., and Algoma Central and Hudson Bay Ry.

H. C. Small, who has been appointed Secretary of the Ontario Railway and Municipal Commission, was born at Toronto in 1871, was educated at Upper Canada College, and was called to the bar and enrolled as a solicitor 1894. Since 1896 he has been practising at Carleton Place, Ont.

H. C. SMALL
Secretary, Ontario Railway and Municipal Commission.

J. R. Moodie, Vice-President Turbine Steamship Co., and P. J. Myler, Managing Director Canadian Westinghouse Co., Hamilton, Ont., are among the provisional directors

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Leaves Montreal 7.30 p.m.
(Daily except Saturday)
For
Quebec, St. John, Halifax
Direct Connection for Prince Edward Island

Leaves Halifax 8.00 a.m.
(Daily except Sunday)
For
Quebec and Montreal
Connecting the following morning with the Grand Trunk's International Limited for the West

THROUGH THE FAMED MATAPEDIA VALLEY IN DAYLIGHT

of a company incorporated under the Ontario Companies' Act, for the purpose of establishing a social club there.

T. Skinner, director C.P.R.; Archer Baker, European Agent C.P.R., and C. A. Hanson, who is associated with Hanson Bros., railway financial agents, Montreal, were members of the committee which had charge of the arrangements for the Dominion Day celebration in London, Eng., July 2.

The memorial which it is proposed to erect to the late A. P. Cockburn, the pioneer of the Muskoka country, and until his death Manager of the Muskoka Lakes Navigation and Hotel Co., will take the form of a statue, of a similar style to that of Sir Oliver Mowat in Queen's Park, Toronto.

Right Hon. W. J. Pirrie, the head of the firm of Harland and Wolff, shipbuilders, Belfast, Ireland, builders of the White Star, Dominion, Leyland and Atlantic Line steamers, among many others, who has been called to the House of Lords, was born at Quebec city, May 31, 1847.

E. J. Chamberlin, formerly General Manager Canada Atlantic Ry., Ottawa, is President, and G. E. Fauquier, Ottawa, Vice-President and General Manager of the Morelia and Tacambaro Ry. Co., of Mexico, contracts for the construction and equipment of which have been placed.

W. Wells, who died at Montreal recently, aged 70, was for some years G.T.R. General Yard Master at Point St. Charles, Que., and until he retired from active service in 1897, the company's agent at Brockville, Ont. G. C. Wells, Assistant General Passenger Agent C.P.R. Eastern Lines, is a son.

L. E. Switzer, heretofore G.T.R. foreman at Niagara Falls, who was recently appointed roadmaster G.T.R. and Wabash Rd., St. Thomas, was knocked down and run over by a G.T.R. train at Glencoe, Ont., July 18, his left leg being cut off above the knee, and his right foot badly crushed. He died July 20.

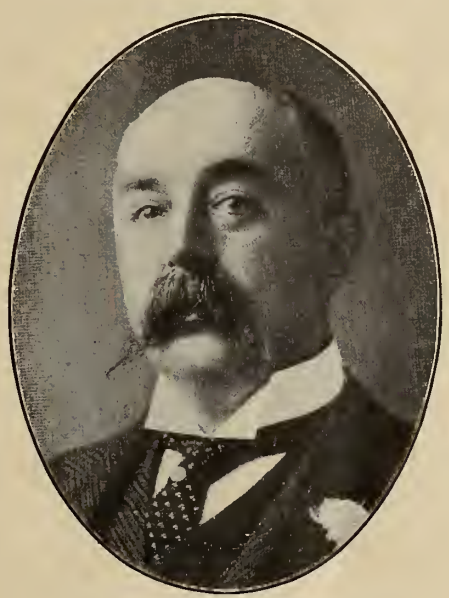
W. H. Rosevear, Sr., General Car Accountant G.T.R., sailed from Montreal, June 30, on the S.S. Kensington, to spend about three months in Great Britain and the Continent. He has had about 54 years' service with the Great Western Ry. and the G.T.R. Prior to sailing he was presented with a travelling bag by members of his staff.

R. J. Munroe, chief clerk to the G.T.R. Assistant Superintendent at London, Ont., was presented with a gold watch, chain and locket by the general staff, and a diamond and pearl scarfpin by the time service department staff, June 29, on the occasion of his leaving London to become assistant to the President of the Michigan United Rys. Co.

Walter Barwick, K.C., who was killed in the railway disaster at Salisbury, Eng., July 1, was solicitor for a number of transportation companies. He came into considerable prominence by conducting the Baie de Chaleurs Ry. investigation before a Dominion Parliamentary committee some years ago, and was solicitor for the Manitoba and Northwestern Ry. up to the time it was taken over by the C.P.R. At the time of his death he was solicitor for the Alberta Ry. and Irrigation Co., the Northern Navigation Co. of Ontario, and the Toronto and York Radial Ry. Co.

H. A. Young, who has been appointed Traffic Manager Montreal and Lake Superior Line at Hamilton, Ont., was born at Brooklyn, N.Y., Sept. 1, 1864, and came to Canada with his parents in 1866. He entered transportation service in 1883, since which his record has been: 1883, assistant clerk str. Chicora, Niagara Navigation Co.; 1884 and 1885 purser str. Celtic of Hamilton, Ont.; 1886, with a mercantile firm in U.S.; 1887 and 1888, purser str. Ocean of St. Catharines; 1889, clerk on Pacific Mail S.S. Co.'s San Blas sailing from San Francisco to Panama; 1890, purser str. Cuba of Chicago; 1891, purser str. Ocean of St. Catharines; 1892 to 1903, purser str. United Empire, Northwest Transportation Co. (Northern Navigation Co.), Sarnia; 1904 to July, 1906, Travelling Freight and Passenger Agent, Northern Navigation Co.

Charles Ashworth Pipon, Passenger Agent for Ontario for the International Mercantile Marine Co., who was killed in the railway disaster at Salisbury, Eng., July 1, was the second son of the late General P. G. Pipon, C.B. He was born at St. Heliers, Jersey, Oct. 15, 1855, and commenced his commercial career in the Merchants Bank of Canada, subsequently entering the service of the Molsons Bank, being promoted until he became Manager of the Toronto branch. On resigning that position in 1893, he started a ticket and exchange business in Toronto, in partnership with H. G. Thorley, as Pipon & Thorley. Subsequently he was appointed agent for the White Star S.S. Line, and later Passenger Agent for Ontario, and in March, 1903, when the steamship companies merger took place



CHARLES ASHWORTH PIPON

Born at St. Heliers, Jersey, Oct. 19, 1855. Killed in a railway accident at Salisbury, Eng., July 1, 1906.

he was appointed Passenger Agent for Ontario for all the lines owned by the International Mercantile Marine Co. He married a daughter of the late W. Rutherford, of Toronto, who survives him, with three children.

Wm. Hendrie, railway contractor, and President Hendrie & Co., cartage agents, G.T.R., died at Hamilton, Ont., June 27, aged 75, after a lengthened illness. After serving for some time with the Glasgow and South-Western Ry., and the North-Eastern Ry. of England, he came to Canada in 1855 and entered the service of the Great Western Ry. He engaged in contracting work on the line, and subsequently constructed a number of sections of lines now forming part of the G.T.R. He established the cartage system on the G.T.R. in conjunction with John Shedden, two separate firms being formed in 1858, Hendrie & Co. taking Hamilton and Western lines, and Shedden & Co. the lines east. Among the railway companies of which he was a director or officer were the Wellington, Grey and Bruce Ry., the Hamilton and North-Western Ry.; the Northern and North-Western Ry., the Ontario and Quebec Ry. He was also director of the Toronto Ferry Co., Northern Navigation Co., Victoria Rolling Stock Co., and other industrial companies.

TRANSPORTATION APPOINTMENTS.

Canadian Northern Ry.—H. J. Parkhill, heretofore C.P.R. train dispatcher at Calgary, Alta., has been appointed C.N.R. train dispatcher, first district, Port Arthur, Ont.

Canadian Pacific Ry.—M. G. Murphy, heretofore Travelling Passenger Agent Atlantic Division, has been appointed Chief Clerk in the office of the Acting District Passenger Agent, St. John, N.B.

J. McKenna, heretofore travelling passenger agent Atlantic Division, has been transferred to the Eastern Division, in the same capacity, with headquarters at Montreal.

C. W. Van Buren, heretofore general car inspector, Eastern Lines, has been appointed divisional car foreman, Eastern Division, with office at Montreal. This is a new position.

A. McKean, formerly C.P.R. ticket agent Mount Forest, Ont., and latterly in the company's freight department at Chatham, Ont., has been appointed its city passenger agent at Galt, Ont.

W. R. Hogarth, who has been succeeded as stationmaster at Winnipeg by P. F. Weisbrod, has been appointed yard foreman there.

G. Bell has been appointed roadmaster at Red Deer, Alta., succeeding T. Bradshaw.

W. J. Marchen, heretofore roadmaster at Calgary, Alta., has been appointed roadmaster Swift Current to Medicine Hat, with headquarters at Medicine Hat, Alta.

S. T. Hansen has been appointed roadmaster Macleod to Olds, Alta., with headquarters at Calgary, succeeding W. J. Marchen, transferred.

E. L. Chudleigh, Assistant Superintendent district 1, Western Division, Calgary, Alta., has special charge of transportation, but undertakes such other duties as may be assigned to him from time to time.

F. W. Sterling, heretofore chief clerk in the General Freight Department, Vancouver, B.C., has been appointed Travelling Freight Agent, Kootenay district, succeeding O. H. Becker, promoted.

C. W. Sellers has been appointed Assistant Export and Import Freight Agent, at No. 1 Broadway, New York City, succeeding F. G. Frieser, transferred to Chicago, Ill.

F. G. Frieser, heretofore assistant Export and Import Agent, New York, has been transferred to a similar position at Chicago, Ill.

C. H. Becker, heretofore Travelling Freight Agent Kootenay district, has been appointed Contracting Freight Agent C.P.R., at Seattle, Wash., succeeding C. H. Bushman, resigned.

Central Vermont Ry.—W. E. Mullins having resigned to accept service with another company, the position of Superintendent of Transportation is abolished. Officers and other employes who reported to the Superintendent of Transportation, will hereafter report to the General Manager.

Grand Trunk Ry.—R. J. S. Weatherston, heretofore soliciting freight agent, Toronto, has been appointed travelling freight agent, Ottawa Division, succeeding G. B. Greene, Jr., resigned.

T. L. Cranston has been appointed soliciting freight agent at Toronto, vice R. J. S. Weatherston, promoted.

P. H. McFadden, heretofore General Roadmaster Middle Division, has been appointed General Roadmaster, Northern Division, succeeding J. A. Cheer, resigned. Office, Allandale, Ont.

A. S. Haynes, heretofore General Roadmaster Wabash Rd., Moberley, Ind., has been appointed General Roadmaster Southern Division, G.T.R. and Wabash Rd., succeeding P. H. McFadden, transferred to the Northern Division. L. G. Switzer, who was first appointed as successor to Mr. McFadden,

DOMINION ENGINEERING & CONSTRUCTION CO. LIMITED

GENERAL CONTRACTORS

The ability of any Construction Company to successfully carry on widely scattered works of great magnitude depends upon three factors: Its Resources—Its Organization—Its Methods.

We have four great working forces upon which to draw for skilled Superintendents, Engineers and Foremen: those of Randolph Macdonald, Frank B. Gilbreth, John A. Aylmer and that of the firm of Ross and Holgate.

These experienced men do their work in our organization under the system developed by Mr. Gilbreth, and widely and favorably known as the Gilbreth System.

We place our organization at the disposal of owners for a fixed sum. That is, we act as a fully equipped and organized construction department for the owner. This department reports to him in the same way that any department in his own business would report. The owner thus secures his work at cost, plus the sum he pays for our services.

We are able, in this way, to secure speed, efficiency and economy of construction for any owner. At the same time, our system enables us to insure the same reliable results on any number of works, no matter how widely scattered.

DIRECTORS:

RANDOLPH MACDONALD, CONTRACTOR — HENRY HOLGATE, CIVIL ENGINEER

ROBERT A. ROSS, MECHANICAL ENGINEER

FRANK B. GILBRETH, CONTRACTOR — JOHN A. AYLMER, CONTRACTOR

SOVEREIGN BANK BUILDING - MONTREAL

was run over at Glencoe, and died from his injuries a few days after taking over the duties.

U. E. Gillen, Assistant Superintendent, London, Ont., has had his jurisdiction extended over district 16, between Hamilton and Port Dover, Ont., and over district 24.

N. A. McCallum has been appointed chief clerk to the Assistant Superintendent at London, Ont., succeeding R. J. Munroe, who has gone into the service of the United Michigan Rys. at Lansing.

International Mercantile Marine Co.—H. G. Thorley, heretofore chief clerk in the Toronto office, has been appointed Passenger Agent for Ontario, vice C. A. Pipon, deceased.

C. P. Sargent, of the Toronto office staff, has been promoted to the chief clerkship.

Northern Navigation Co.—S. Hewitt, heretofore joint Travelling and Freight Passenger Agent, N.N.Co. and G.T.R., has been appointed Travelling Freight and Passenger Agent N.N. Co., for the territory west of Kingston, Ont., succeeding H. A. Young, resigned. Headquarters, Sarnia, Ont.

Pare Marquette Rd.—C. Montague is reported to have been appointed Assistant Master Mechanic at St. Thomas, Ont., succeeding J. McManamy.

Toronto Union Station.—F.W. Giesslemann, heretofore baggage master Cleveland, Cincinnati, Chicago and St. Louis Rd., Chicago, Ill., and formerly baggage master G.T.R., Bonaventure Station, Montreal, has been appointed baggage master Toronto Union Station.

Canadian Ticket Agents' Association.

Preliminary arrangements for the visit of the Association to Mobile and New Orleans in November are about completed, as follows: The party will assemble at Detroit on Wednesday, Nov. 7, and leave by special train over the Wabash Rd. at such time as to be in St. Louis for breakfast. It has been left with the Mobile and Ohio Rd. to decide as to time of leaving St. Louis, whether before luncheon, lunching en route and being in Mobile for luncheon on Friday, Nov. 9, or lunching in the Mound City and arriving at Mobile for late dinner. On Saturday, Nov. 10, the annual meeting will be held at the Cawthon Hotel, Mobile, where headquarters will be established. On Sunday morning, Nov. 11, a start will be made for New Orleans, lunching en route, the Louisville and Nashville Rd. having kindly consented to haul the special train between the two cities. The balance of Sunday, Monday and Tuesday will be spent in the Crescent City. On Tuesday evening, Nov. 13, a start for home will be made, leaving by the Queen and Crescent Rd., whose guests the party will be from the time they entrain until they leave Chattanooga on Wednesday evening, Nov. 14; for not only has this corporation provided for mealing en route but has arranged like entertainment at Chattanooga, a trip by rapid transit cars to Chicamauga Park and carriage drive through the park, with a dinner on Look-out Mountain in the evening. Leave Chattanooga same evening, Nov. 14, and arrive at Cincinnati Nov. 15 for breakfast, where the day will be spent. Start at night for Detroit, where breakfast will be partaken of on Friday morning, Nov. 16, after which the party will disband.

A special train of Pullman sleepers will carry the party through the entire trip. The St. Charles Hotel management have granted a specially low rate for the party during their stay at New Orleans, as also have the proprietors of the Cawthon and Bienville at Mobile.

The Intercolonial Ry. has put in force the rules recommended by the Master Car Builders' Association, governing the loading of lumber, logs, stone, structural materials, plates, rails, girders, etc., as revised in 1905.

Canadian Northern Railway Construction.

An order for 50,000 tons of 60-lb. steel rails for the various lines under construction by the Canadian Northern Ry. is being filled by the Dominion Iron and Steel Co., Sydney, N.S.

Canadian Northern Quebec Ry.—The line under construction to connect the Great Northern Ry. with the old Montford and Gatineau Colonization Ry., leaves the G.N.R. about two miles south of St. Jerome, passes through that town to Shawbridge, 12 miles; thence to the M. and G.C. Ry., at near Arundel, about two miles north of the junction of that line with the C.P.R. Nominingue branch. The country through which the line passes is generally somewhat difficult, the rise in elevation being very marked, necessitating stretches of grade development to rise the required elevation, there being a difference of 300 ft. between the Riviere du Nord at St. Jerome and Shawbridge. The maximum gradient is 1% compensated for curvature; the curvature being rather heavy owing to the grade development necessary. The line follows to some extent the valley of the Riviere du Nord, which is crossed three times, at mileage ½ and mileage 10½ by bridges each of two 75 ft. deck plate girder spans, 16 to 20 ft. above the river, and at mileage 12 by a centre span deck plate girder, 90 ft., with approach spans of 50 ft. and 30 ft. at each end, 45 ft. above the water. The grading for the most part is light clay, sand and boulders. The grading is expected to be completed and ready for tracklaying by the end of Aug. The contractors are M. J. O'Brien and J. P. Mullarkey, who sublet contracts for grading to J. A. Morrison, I. Kent, and Bonneville & Mulhern; and for permanent trestles and bridge foundations to Sunstrum and MacDonald. W. P. Chapman, St. Jerome, Que., is Chief Engineer in charge of construction.

Three sections are under construction on the cut-off from near Garneau Jct. to Quebec, and some revision of location is being done on the remaining sections. Some sub-contracts for grading have been let; also one for the permanent trestle and bridge foundations to Sunstrum and MacDonald. The contractors are M. J. O'Brien and J. P. Mullarkey, and W. P. Chapman, St. Jerome, Que., is Chief Engineer in charge of construction.

Canadian Northern Ontario Ry. Co.—Notice has been officially given that with the consent of the Governor-in-Council, the James Bay Ry. Co. has changed its name to the Canadian Northern Ontario Ry. Co., and that the change of name took effect June 30.

A contract has been let to J. T. Schell, M.P., Alexandria, Ont., for the grading for a line from Hawkesbury, Ont., which is the eastern terminus of the Great Northern Ry. of Canada—part of the Canadian Northern Quebec Ry.—and Ottawa, 55 miles. It is expected to have the grading on the section between Hawkesbury and Rockland completed by Dec. 1. The company will do its own tracklaying, and will build the stations.

At the last session of the Dominion Parliament an act was passed providing for the construction of a line from the line now under construction between Key River and French River, to Georgian Bay near the mouth of Key Inlet; amending section 3 of the act of 1895 by striking out the words "easterly side of Lake Wahnapitae and thence to" in describing the routes of the line from Parry Sound to James Bay; limiting the bond issue to $30,000 a mile; and extending the time for constructing the several lines.

Canadian Northern Ry.—It is reported from Ottawa that an agreement has been reached by which the terminals at Winnipeg are to be jointly owned by the C.N.R. and the Dominion Government, and to be used jointly by the C.N. Ry. and the National Transcontinental Ry.

The purchase of the Qu'Appelle, Long Lake and Saskatchewan Ry. adds 253 miles to the company's lines in Saskatchewan, and gives it control of the traffic of a large territory. The northerly terminus of this line is at Prince Albert, into which town the C.N.R. line has been completed from Gilbert Plains Jct., and the line to Edmonton crosses the Q.L.L. and S. line between Clark's Crossing and Osler. The Qu'Appelle line does not have any terminals in Regina as it has always been operated as a branch of the C.P.R., but the C.N.R. has recently acquired considerable land there for terminal purposes, and is rapidly completing a line from Hartney, Man. When completed and connected with the Qu'Appelle line the C.N.R. will have a second line between Winnipeg and Prince Albert, running through Carman, Somerset, Hartney Jct., Hartney and Virden, to Regina.

Upon the line from Etoimami, Sask., toward Hudson Bay, Jas. Cowan, the contractor, recently stated that about 60 miles of the right of way had already been cleared, grading was being rapidly progressed with, and it was expected to get the 95 miles to Pas Mission graded before the end of the year. Survey work is being proceeded with between the Saskatchewan River at the Pas, and Fort Churchill, Hudson Bay.

The grading on the line north from Edmonton, Alta., has been completed to Morinville, about 30 miles, and tracklaying is expected to be completed this year. The grading on what is spoken of in Edmonton, as the White Whale Lake branch, is being progressed with. The line runs to Spence Grove, then southwesterly for several miles, and then turns north. It touches the eastern extremity of White Whale Lake, and along the north shore to the western end of the lake. M. McCrimmon is the contractor for the grading. Tracklaying is expected to be gone on with during the year. (July, pg. 401).

C.P.R. Betterments, Construction, Etc.

St. John Terminals.—D. McNicoll, Vice-President, on a recent visit of inspection told a deputation at St. John, N.B., that the company had not in view at present the making of any purchases of land there for building warehouses and increasing the yard accommodation.

Chateau Frontenac Improvements.—The C.P.R. has secured options on various properties on Des Carrieres St., Quebec, opposite the Chateau Frontenac. If these properties are acquired it is stated that the new building, which will be operated as an adjunct to the chateau, with which it will be connected by a tunnel, will contain between 600 and 700 rooms. It is also stated that the city will be asked to consent to the erection of two arched passageways across the street to connect the second stories of the present hotel with the proposed new annex.

Montreal to Quebec.—Unconfirmed press reports state that the Quebec section of the line is to be straightened out, and that a saving of about 20 miles will be effected.

Windsor St. Station, Montreal.—The work in hand at the Windsor St. station by the Canadian White Co., Montreal, includes the addition of another story to the Osborne St. section, and some other alterations to the building. This work, we understand, is preparatory to the carrying out of some more extensive additions and alterations. (July, pg. 391).

Georgian Bay and Seaboard Ry.—An unconfirmed report states that a contract has been let to the Toronto Construction Co. for the construction of this line from a point on the Montreal-Toronto line between Havelock

(Continued on page 471.)

MONTREAL STEEL WORKS Limited

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(ACID OPEN HEARTH SYSTEM)

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SPRINGS OF ALL KINDS

MANGANESE STEEL CASTINGS For wearing Parts, Insuring Great Hardness and Durability

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TRUCKS FOR ELECTRIC CARS

CATALOGUE WILL BE SENT ON APPLICATION

DOMINION IRON AND STEEL CO.

LIMITED

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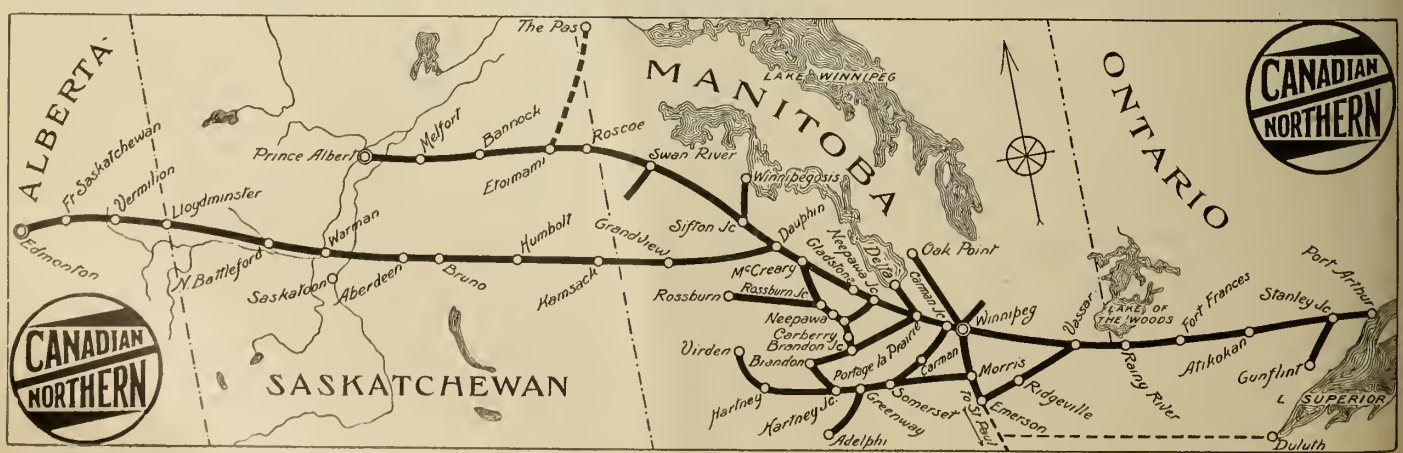

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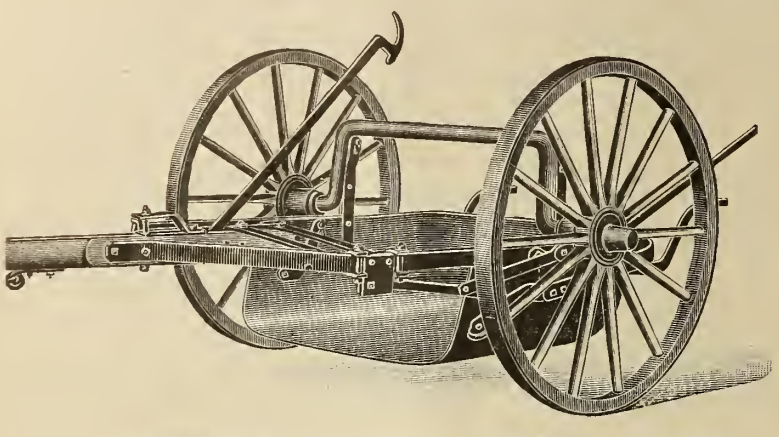

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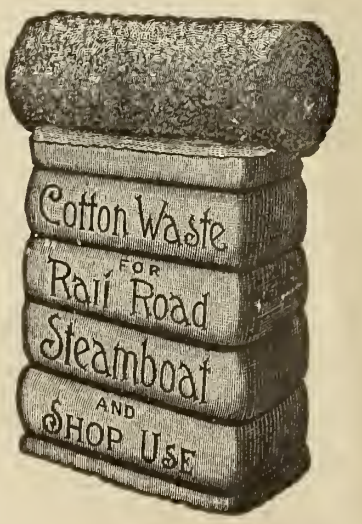

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C.P.R. Betterments, Construction, Etc.

(Continued from page 467.)

and Peterboro, Ont., to Georgian Bay at Victoria Harbor. (July, pg. 391).

South Ontario Pacific Ry.—The time within which the projected railway may be constructed was extended for a further period of five years, by an act passed last session of the Dominion Parliament. The company has power also to erect a bridge across the Niagara River, and an extension of seven years has been granted for its construction.

Guelph and Goderich Ry.—The first section of this line from Guelph to Goderich, Ont., viz., from Guelph to Elmira, has been opened for traffic. The construction at the Goderich end is being gone on with, but owing to the difficulties met with at Goderich, has been slow. A considerable area of land is to be reclaimed at Goderich for dock construction and yard accommodation. A contract for this reclamation work is reported to have been let.

The branch line from Linwood will run through the townships of Wellesley, Mornington and Elma, and will terminate at Listowel. There will be a station at Listowel and one at Dorking, about midway. Construction will be light, there being no cutting of a greater depth than 5 ft., and no bridges; and only two curves, one of 4° and one of 2°. A press report states that a contract with B. Gibson, Toronto, for the construction of the line was signed in Guelph, July 25. (July pg. 391).

Walkerton and Lucknow Ry.—A contract has been let to Macdonald and Stephen for the construction of the Proton-Walkerton section, 37 miles of this projected railway. The line will start from the Toronto, Grey and Bruce Ry., about two miles north of Proton station, and passing through Princeville, Durham and Hanover, will terminate for the present at Walkerton, on the Wellington, Grey and Bruce branch of the G.T.R. The contractors—W. R. Macdonald, son of Randolph Macdonald, Toronto, and Arthur Stephen, C.E., Collingwood—have established their headquarters at Durham, and expect to have the entire work covered this fall, and to complete a fair portion of the grading by the end of the year. The contract includes grading, tracklaying, ballasting, etc. It is expected that the line will be extended from Walkerton to Lucknow, 17 miles. J. W. Leonard, Assistant General Manager C.P.R. Eastern lines, is President, and Geo. Walker is Secretary of the W. and L. Ry. Co. (July, pg. 391).

West Ontario Pacific Ry.—The act incorporating a company with this title was passed by the Dominion Parliament in 1885, and its powers have been confirmed by acts passed in subsequent years. Last session Parliament passed an act setting forth that the company might construct a branch line from near London, through the counties of Middlesex or Oxford, Perth, Huron and Bruce to Lake Huron in either Bruce or Huron, and might make agreements with the C.P.R. and the Ontario and Quebec Ry. It is given five years within which to construct its authorized lines.

Toronto-Sudbury Branch.—F. S. Darling, Division Engineer of Construction, is reported to have stated that owing to certain difficulties which had arisen it would be impossible to have the first section of the new line from Bolton to Sudbury opened for traffic this year, and that it would take a lot of work to get the line opened by Aug., 1907. (May, pg. 263).

Fort William-Winnipeg Second Track.—Superintendent Winter, Fort William, Ont., is quoted as saying that by the time the fall rush of traffic commences there will have been completed on this second track work, 48 miles on the Fort William section; 55 miles on the Ignace section, and 47 miles on the Kenora section.

Western Lines Legislation.—The Dominion Parliament last session passed acts authorizing extensions of time for the construction of the lines authorized in the acts incorporating the following companies, now owned, controlled or operated by the C.P.R.: Great Northwest Central Ry.; Columbia and Kootenay Ry. and Navigation Co.; Kootenay and Arrowhead Ry.; Vancouver and Lulu Island Ry.; and for the C.P.R. branch from New Westminster to Vancouver, B.C.

Stonewall or Teulon to Lake Manitoba.—By an act passed last session of the Dominion Parliament the C.P.R. was granted an extension of time for the construction of the projected line from or near either Stonewall or Teulon, Man., northwesterly to the east shore of Lake Manitoba, between Marsh Point and the north boundary of tp. 25.

Darlingford Southerly.—The line for which the Board of Railway Commissioners granted an order, no. 1058, April 27, approving of location from Darlingford southerly to Kaleida, Man., 5.9 miles, has been completed, and a train service has been in operation over it since Nov., 1904. (July, pg. 393).

White Mud River Spur.—The matter of the construction of the proposed branch from the White Mud River spur, is at present at a standstill, and no decision has been arrived at as to whether the work will be gone on with or not. (July, pg. 393).

Churchbridge Branch.—We have been advised that a contract has been let to J. D. McArthur, Winnipeg, for the grading on this branch from Bredenbury to near Esterhazy, Sask., 20.2 miles. As much of the grading as possible will be done this year, but it is intended to fully complete the line next season. (July, pg. 393).

Manitoba and Northwestern Ry.—The grading for the extension of this line from the present terminus at Sheho, for a distance of 40 miles, is expected to be completed Aug. 18. J. D. McArthur, Winnipeg, is the contractor. We were advised July 20 that the projected extension of this line to Prince Albert, Sask., was not contemplated for this year at least.

Pheasant Hills Branch.—The extension of this branch, now terminating at Strassburg, Sask., 200.4 miles from Kirkella, is being progressed with, the grading for a further distance of 40 miles being expected to be completed by Aug. 15. The British Columbia General Construction Co., Vancouver, B.C., has the contract. This line will ultimately be extended to Saskatoon, Sask., to a connection with the line now under construction westerly from that point.

Saskatoon Westerly.—We were advised July 20, that the grading from mileage 1 to mileage 34 of the line west from Saskatoon would be finished about the middle of Aug., and that the grading from mileage 34 to mileage 156 would probably be completed by Dec. 1. J. D. McArthur, Winnipeg, is the contractor. This line will be connected with the Wetaskiwin branch, which is now being graded easterly from the present terminus at Daysland, Alta.

Weyburn to Stoughton.—A line is under construction from Weyburn, on the line connecting the Minneapolis, St. Paul and Sault Ste. Marie Ry. at Portal, with the C.P.R. main line at Pasqua, to Stoughton, Sask., on the Arcola-Regina branch. J. G. Hargrave, Winnipeg, has the contract, and it is expected to have 37 miles of the grading completed by Sept. 15.

Moose Jaw Northerly.—We were advised July 20, that the project for the construction of a line from Moose Jaw, Sask., to a junction with the Lacombe branch now terminating at Stettler, the extension of which is projected easterly, was in abeyance.

Swift Current Northwesterly.—It is not contemplated, we were advised July 20, to enter upon the construction this year, at any rate, of a branch line from Swift Current, Sask., to a junction with the projected line from Moose Jaw to the Lacombe branch.

Calgary and Edmonton Ry.—The Dominion Parliament last session passed an act extending the time for the construction of the various authorized lines, and authorizing an extension of the Lacombe branch, to range 27 or 28 west of the 3rd meridian, between tps. 35 and 42, Sask.

Strathcona - Edmonton Bridge.—R. R. Jamieson, General Superintendent Western Division, C.P.R., stated at the annual dinner of the Edmonton Board of Trade recently, that it was expected to go on with the building of the high level bridge between Strathcona and Edmonton, Alta., as soon as it was determined whether the traffic feature should be added or not. The cost of the completed structure with its approaches and the necessary terminal facilities, it is estimated, will be about $2,000,000. We were advised July 16 that the matter was still in abeyance, pending definite assurance from the Dominion Government and from the town of Strathcona, as to what proportion of the cost of the structure they would assume, it being the desire that the bridge should be a general traffic, as well as a railway bridge. Reports in the Edmonton papers July 16, stated that a survey party in charge of J. E. Hesketh, Winnipeg, had arrived, had taken soundings in the river, and were making preparations for starting construction.

Terminals on Crow's Nest Pass Line.—Plans have been completed for the rearrangement of the yard at Lethbridge, Alta., and contracts have been let for the erection there of a ten-stall brick engine house, with boiler house in connection, and a frame freight shed 400 by 40 ft. The lay-out of the yard shows that it will extend from Westminster Road to Macleod Road, and northerly from Baroness Road, the tracks for loading and unloading being east of MacLeod St., and the engine house, etc., being to the north; the general yards will be east of the station. It is intended to take up several of the tracks of the Alberta Ry. and Irrigation Co.'s line in carrying out the work. So far as any work upon the yard at Crows Nest is concerned, we are advised nothing has been definitely decided in the way of construction. (July, pg. 393).

High Level Bridge at Belly River.—The plans are reported to have been completed for the construction of a high level bridge across the Belly River, near Lethbridge, Alta., upon a line which the company proposes to construct with a view of shortening the route between Lethbridge and Macleod, Alta. The proposed bridge will be about a mile in length and 300 ft. above high water mark.

British Columbia Southern Ry. Authority was given by an act passed last session of the Dominion Parliament to begin the construction of the projected line from Fort Steele to Golden, B.C., and the branch lines authorized within two years and to complete them within five years.

Nicola, Kamloops and Similkameen Ry.—Track has been laid from Spence's Bridge to Coutlee, B.C., 40 miles, and ballasting has been completed for 15 miles. The nine bridges spanning the Nicola River, and also the bridge over Ten Mile Creek are practically completed. Work is in progress on the grade from Coutlee to Nicola Lake, 8 miles. The Board of Railway Commissioners, having finally approved of location plans, the general contractors—Loss, Macdonald & Co.—have let a number of sub-contracts, and the additional distance has been covered with men. The work was

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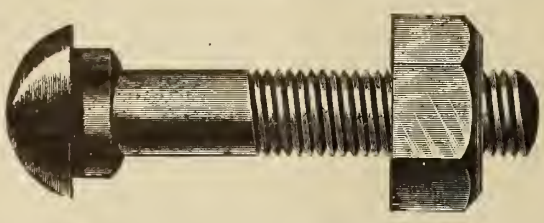

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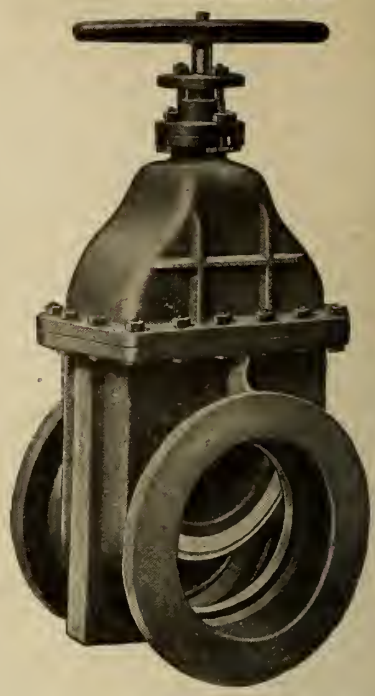

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Lv.	Montreal	†9.00 a.m.	*7.45 p.m.
Arr.	Portland	†7.45 p.m.	*8.05 a.m.
"	Old Orchard	†8.27 p.m.	*8.41 a.m.

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included in the original contract, but progress could not be made, as the question of the high or low line had not been determined. The latter has been adopted, consequently the line will be taken into Nicola. Provided the necessary labor can be obtained the contractors expect to get the line completed this year. (Feb., pg. 63).

Station at Fernie.—A contract is reported let to a local contractor for the erection of a new station at Fernie, B.C.

Hotel Vancouver.—It is expected that the contract for removing the old portion of the present C.P.R. hotel at Vancouver, B.C., and rebuilding it in conformity with the new wing recently completed, will be let as soon as the hotel at Victoria approaches completion. The estimated cost of the work is about $250,000, and the architect is F. M. Rattenbury, Victoria.

Victoria Hotel.—The contractors are completing the outside walls of the C.P.R. hotel at Victoria, B.C., and have made a start at putting on the slate roof. All the concrete floors have been put in, as well as the tile partitions and electric conduits, and the plumbers are putting in the heating and plumbing mains. The work is expected to be finished by May, 1907.

Esquimalt and Nanaimo Ry.—An extension of time was granted last session of the Dominion Parliament for the construction of the main line to Comox, Vancouver Island; and authority was given for the construction of branch lines as follows: from Comox to Campbell River; from near Duncans to Alberni via Cowichan Valley; from near Englishman's River to Alberni canal; from Comox via Cumberland to Alberni canal, and other branch lines as may be authorized from time to time by the Governor-in-Council.

The C. P. R. has arranged to expend up to $100,000 annually upon general repair and construction work upon the E. and N. Ry. until it has been brought up to the standard of the C.P.R. lines on the mainland.

G.T.R. Double Track Rules

At nine a.m. on July 22, an order went into effect in reference to the operation of trains and engines over the double-tracked portions of the G.T.R. Heretofore the British practice of running the trains on the left-hand track in the direction in which they were going has prevailed, with the exception of some mileage west of London, Ont., where the practice, developed on the United States railways, had been adopted. The desirability of uniformity of practice on all parts of the system, owing to completion of the double-tracking practically through from Montreal to Chicago, impressed itself upon the management, hence the orders now put into effect. By the change of rule, the locomotive engineer, who is on the right side of the cab, will have his outlook to the outside, which will facilitate his observance of signals, thereby ensuring a further safeguard to the public. The coming into force of the regulation necessitates the changing of a large number of signals, and of the reversing of cross-overs to change the direction of the leads at Toronto and other points on the system, which work has been in progress for some time past. The C.P.R. is affected by the new regulations at Toronto, and has issued a circular notifying that its trains on double-track lines, Toronto Terminals, between Bathurst St. and Lambton, North Ontario branch, also Hamilton section between Hamilton Jct. and Garth St., will be operated accordingly. The officials have, by circulars and otherwise, brought the change to the attention of all employes affected, and have impressed upon them the necessity of exercising the greatest care in operating trains on the portions of the line affected.

The National Transcontinental Railway.

Hugh D. Lumsden, Chief Engineer, writes as follows: As the value of a railway as means of transportation depends largely upon its location, neither time nor money is being spared in securing for the Transcontinental line the best route available. The Great Lakes will for all time remain the favored freight route from the West to tidewater, but when the lakes are frozen, if the crops increase as they have increased for the past decade, there will always be millions of bushels of wheat awaiting shipment in the West. In order to haul wheat at a profit two thousand miles from the wheat-fields to the Atlantic, it is absolutely necessary that the road be as free as may be from heavy grades and excessive curves. While the entire line is not yet definitely located, enough field-work has been done to demonstrate beyond a doubt that the Transcontinental will be, as far as grades go, one of the best laid lines across the continent. From the great wheat-fields of the West to tidewater on the Atlantic the grades going east will, in all probability, not exceed 0.4 of a foot per 100 ft. This will mean that a modern locomotive will handle 42 cars between Winnipeg and Moncton.

The first surveys on the government section under the commissioners were commenced in October, 1904. The first contracts from near Winnipeg to a point 245 miles east thereof, and from the north end of the Quebec Bridge for 150 miles westerly, a total distance of 395 miles, have been awarded. Inasmuch as the prime purpose of the road is to relieve any possible congestion of grain at Winnipeg, the government is doing everything in its power to facilitate the construction of that part of the line from Winnipeg to Superior Junction, where it will be met by a branch line now being built by the Grand Trunk Pacific Ry. Co. north-westerly from Fort William to connect with the main Transcontinental line. By this means it is expected that the new road may be built in time to participate in the transportation of the crop of 1907. As one evidence of the rapidity with which the output of the Western fields is growing, it is stated that in 1901 the G.T.R. received at its Lake Huron ports 9,662,000 bush. of wheat. Last year the receipts reached 29,764,000 bush. If there were any doubts—assuredly there were many—as to the ability of Canada to support another ocean to ocean railway, these doubts must be disappearing, from the fact that the annual arrivals of immigrants has increased fivefold within the past eight years, and that the wheat crop has doubled since the day Sir Wilfrid Laurier made his famous speech on the need of another transcontinental railway. The whole line is being built as rapidly as may be consistent with good building, but with the best we can do it is evident that the traffic will be ready for the road by the time the railway is prepared to take care of the traffic.

From an engineering standpoint the obtaining of a suitable location through the entire country from the St. Maurice River to within 70 miles of Winnipeg has been tedious and expensive, owing to the fact that little was known of the country through which it passed, there being only one or two points where any surveys had heretofore been run, and though explorations had been made up a number of rivers crossed by the Transcontinental Ry., little or nothing was known of the country lying between these streams, which generally run at right angles to the course of the railway. These surveys have proved that there exists nearly 500 miles of country adjoining the proposed route in the Provinces of Quebec and Ontario where the soil is excellent (generally a clay loam), and where a large number of settlers can find suitable homes. The timber consists of spruce, birch, poplar, jack-pine, tamarack, and small cedar.

The heaviest and most expensive portions on the route of the Transcontinental Ry. will probably be on the upper St. Maurice River in the Province of Quebec, and through the portion of country between the north end of Lake Nepigon and the crossing of the C.P.R., say 70 miles east of Winnipeg, where the amount of solid rock that will have to be moved will be large. The bridges will be numerous, but with the exception of one or two steel viaducts in New Brunswick and three or four in Quebec, they will not be very large. The St. Lawrence River will be crossed about six miles above the city of Quebec by a bridge 3,270 ft. long, including a centre cantilever span 1,800 ft. long over the main channel, and leaving a clear headway of 150 ft. above the water. This bridge has been in the course of construction by the Quebec Bridge and Ry. Co. for the past four years. Within the past three years the Ontario Government has been constructing a railway from North Bay northerly, and it is now nearly completed to the watershed between the St. Lawrence and Hudson Bay waters, a distance of, say, 160 miles. It is probable that this railway in the near future will be extended to a junction with the Transcontinental Ry. near where the latter crosses the Abitibi River, a farther distance of, say, 80 miles. Other branch lines to tap the Transcontinental have been projected, and some of them may eventually be constructed and form valuable feeders to the main line. The entire work is being pushed as rapidly as circumstances will permit, and should be completed well within the time specified.

At the last session of the Dominion Parliament $10,000,000 was voted on account of surveys and construction of the National Transcontinental Ry.

The Commissioners have awarded contracts for the supply of rails and fastenings for the two sections of the line now under construction to the following: Dominion Iron and Steel Co., Sydney, N.S.—23,000 tons of rails at $34 per ton, delivered at Quebec; 10,000 tons of rails at $34.50 per ton, delivered at Port Arthur, Ont.; Algoma Steel Co., Sault Ste. Marie, Ont., 32,000 tons at $34 per ton delivered at Port Arthur, Ont. Toronto Bolt and Forging Co., Swansea, Ont., 202,800 lbs. bolts at $3.44 per 100 lbs.; 728,900 lbs. spikes at $2.55 per 100 lbs., delivered at Fort William or Port Arthur, Ont.

Tenders for the supply of 535,000 ties for the current year's requirements are under consideration, and tenders have been asked for, to be submitted by Sept. 4, for 1,010,000 ties for 1907 requirements.

GRAND TRUNK PACIFIC RY.

The G.T. Pacific Ry. was required by the act of 1903 to deposit $5,000,000 in cash as security for the performance of its contract in connection with the construction of the National Transcontinental Ry. By an act passed at last session the Dominion Parliament has authorized the Government to release the cash in whole or in part, and to accept in lieu thereof approved securities.

An act was also passed last session of the Dominion Parliament authorizing the company, with the approval of the shareholders, to issue perpetual or terminable debenture stock to the extent of $25,000,000 or its equivalent in sterling. The debenture stock may be guaranteed by the G.T.R., which shall rank as a prior charge on all G.T.R. securities, except its 4% preference stock; the proceeds of the issue are to be devoted to the provision of equipment referred to in sec. 2, chap. 24, 1904. Authority is also given to guarantee the bonds of the G.T. Pacific Branch Lines Co., and

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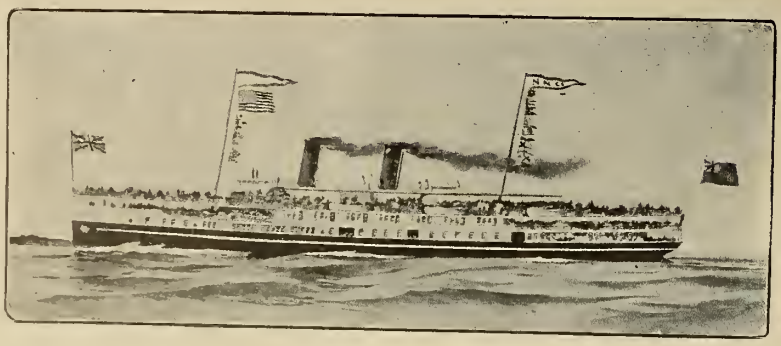

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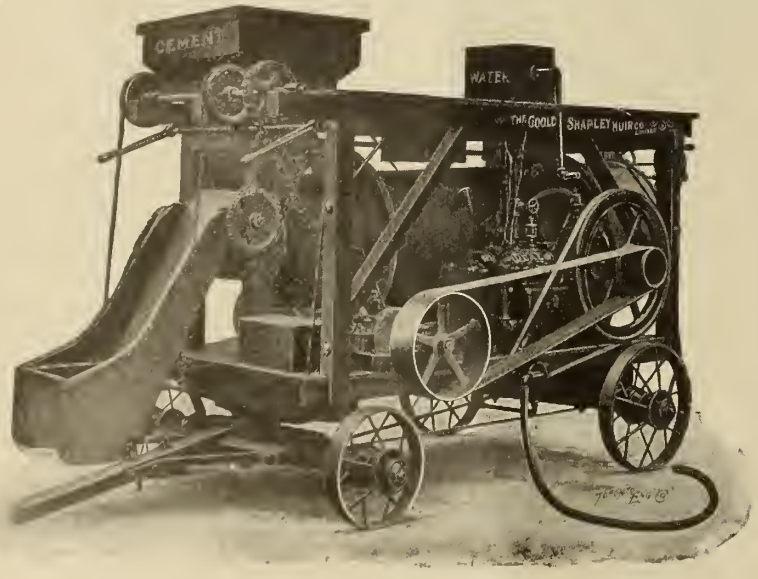

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Summer Schedules in effect June 24th, 1906.

Abel I. Culver, 2nd Vice-President. **J. W. Burdick,** Pass. Traffic Man.

A. A. Heard,
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the bonds, debentures or securities of other companies.

The 140 miles of grading, etc., for which the Canadian White Co., Montreal, has the contract, is mileage 18 to 154 inclusive in sec. 12, and mileage 1 to 4 inclusive in sec. 13; commencing at a point near the Touchwood Hills, and ending just south-west of Saskatoon, Sask. A sub-contract for 20 miles of clearing was let to Bayliff and Reynolds, who have practically completed their work. Following are the sub-contracts let for grading: Mileage 50 to 77, 28 miles, Gibson Bros., Wolseley, Sask.; mileage 85 to 102, 18 miles, P. R. Lamb, Davidson, Sask.; mileage 103 to 122, 20 miles, S. Farrell, Dundurn, Sask.; mileage 123 to the Saskatchewan River, 33 miles, Armstrong & Lake, Dundurn, Sask. The remainder of the work is being handled directly by the general contractors. On the heavy cut west of the Saskatchewan River the Canadian White Co.'s steam shovel plant is in operation, and the work is progressing satisfactorily. The sub-contractors have big plants and large forces of men at work, and the work is progressing in good shape. The company's offices in Winnipeg are in the British North America building there, J. W. Harris being the engineer in charge. (July, pg. 401.)

Railway Finance, Meetings, etc.

Canada Atlantic Ry.—The London Stock Exchange has been asked to give an official quotation to a further issue of £79,000 of consolidated first mortgage 4% sterling bonds of £200 each, issued by the company.

The G.T.R. has issued a return showing the gross receipts and the monthly revenue figures of the C.A.R. for the half-year ended Dec. 31, 1905, for the purpose of comparison with the figures for the current half-year as issued. Following are the figures:

	Gross Receipts.	Net Receipts.
July	£34,000	£ 9,200
Aug.	40,400	26,400
Sept.	39,700	26,500
Oct.	37,700	26,700
Nov.	39,200	32,800
Dec.	27,314	

The net receipts for Dec. were not published separately.

Canadian Northern Quebec Ry.—There has been deposited with the Dominion Government a mortgage dated June 11, made by the Quebec, New Brunswick and Nova Scotia Ry., to the National Trust Co., as trustee, securing an issue of bonds.

Duluth, Rainy Lake and Winnipeg Ry.—There is now being offered an issue of 5% first mortgage bonds, at the rate of $20,000 a mile, upon the lines of this Minnesota company, the capital stock of which is owned by the Virginia and Rainy Lake Co. The net earnings for five months ended May 31, were $63,678.74, against $28,776.16 for the same period 1905, while the interest charges for the five months on the bond issue were $18,750. A sinking fund for the redemption of the bonds is provided for, and the bonds are redeemable at the company's option, Jan. 1, 1911, or any subsequent date, at $105 and interest.

Intercolonal Ry.—At the last session of the Dominion Parliament $6,100,000 was voted on account of collection of revenue; $105,000 on account of rental to the G.T.R., and $18,000 on account of the Windsor branch line.

Kettle River Valley Ry.—A meeting of shareholders was held at Toronto, July 9, for the purpose of sanctioning an issue of bonds, and approving of the form of mortgage to secure the payment of the same.

Prince Edward Island Ry.—The sum of $335,000 was voted on account of collection of revenue, at the last session of the Dominion Parliament.

Qu'Appelle, Long Lake and Saskatchewan Ry. and Steamboat Co.—Net earnings for May, $12,455.05 against $12,525.97 for May, 1905.

Quebec and Lake St. John Ry.—The London Stock Exchange has been asked to give an official quotation to a further issue of £75,000 of 4% prior lien bonds of the Q. and L. St. J. Ry., of £100 each, numbered 3,501 to 4,250.

Quebec Central Ry.—Gross earnings for May, $72,370.46; net earnings, $25,453.41 against $67,660.41 gross and $23,610.38 net for May, 1905. Net earnings for five months ended May 31, $119,268.95, against $87,986.65 for same period 1905.

St. Louis and Richibucto Ry.—This line, which is a branch of the Kent Northern Ry. from Richibucto to St. Louis, N.B., 7 miles, but which has not been operated for some years, has been purchased by the Kent Northern Ry.

Temiscouata Ry.—Gross earnings for June, $13,925.07.

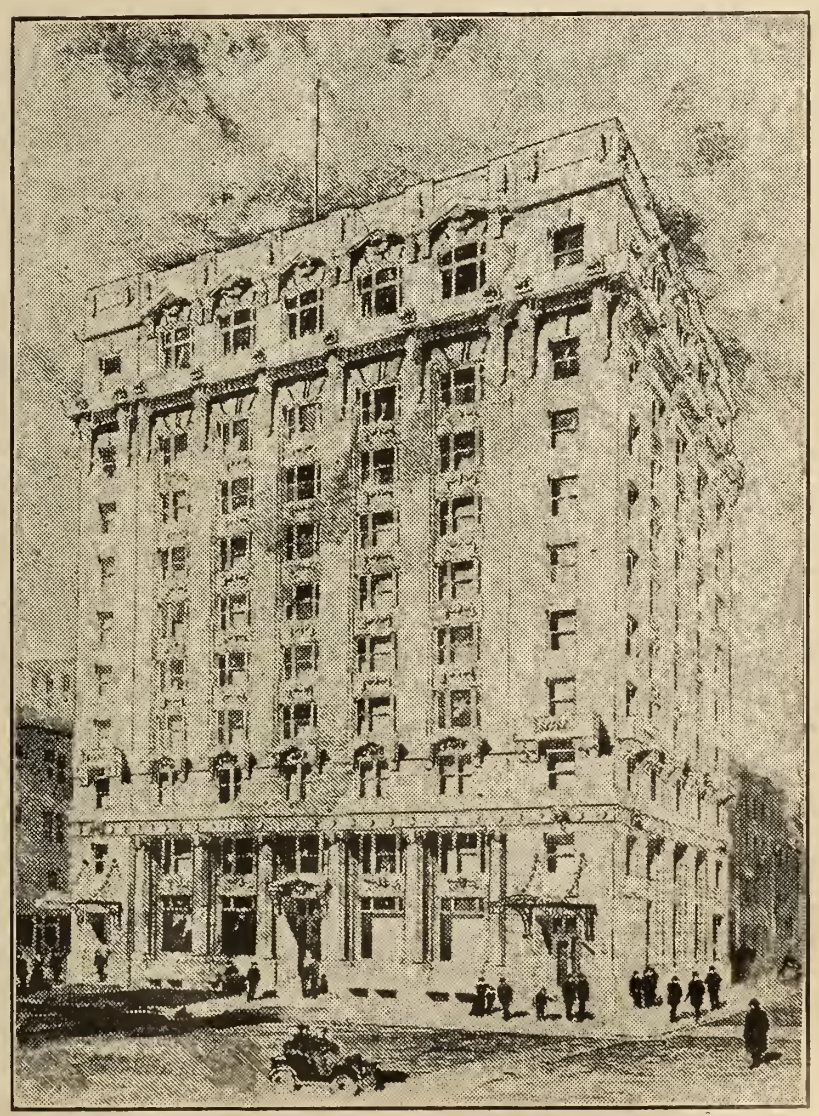
Toronto, Hamilton and Buffalo Ry.—Earnings for June $66,241.70, against $54,249.15 for June, 1905.

Wellington, Grey and Bruce Ry.—The earnings of the half-year to June 30, were sufficient to make a payment of £2 8s. 6d. on each £100 bond, on July 2; which payment was made on coupon 48, due July, 1894.

G.T.R. Betterments, Construction, Etc.

New Office Building, Montreal.—The contracts for the masonry, plumbing and other work upon the new office building to be erected by the company opposite the present general offices on McGill St., Montreal, have been let to Montreal contractors. The building, of which an illustration is given on this page, will be ten stories high, the first two being of grey canyon sandstone on a granite base, the remainder of the building being of semi-glazed terra-cotta. All the appointments, furnishings, and general arrangement of the offices will be of the most modern style, and the building will be equipped with up-to-date elevators, sanitary plumbing, and all the equipment necessary. The first two stories will be occupied by the Canadian Express Co., and the building itself will be known as the "Canadian Express Building," the other offices being occupied by affiliated lines to the G.T.R., such as the Canada Atlantic Transit Co., Grand Trunk Pacific Telegraph Co., etc. Work on the structure will be commenced at once, and will be pushed forward with all despatch to completion. The cost of the building will be $300,000. Hutchinson & Wood, Montreal, are the architects.

London Improvements.—At a meeting of the railway committee of the London, Ont., City Council, held July 5, a resolution was passed declining to accept the G.T.R. plans providing for the elevation of the tracks in



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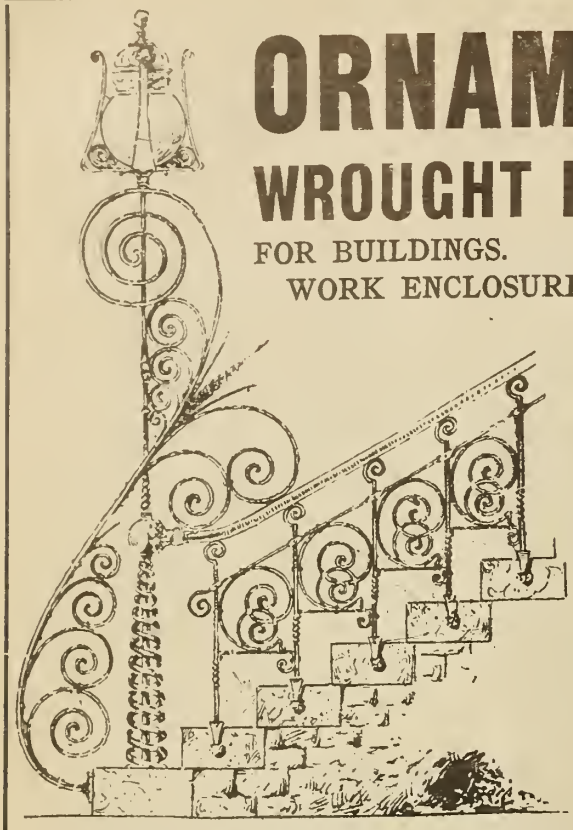

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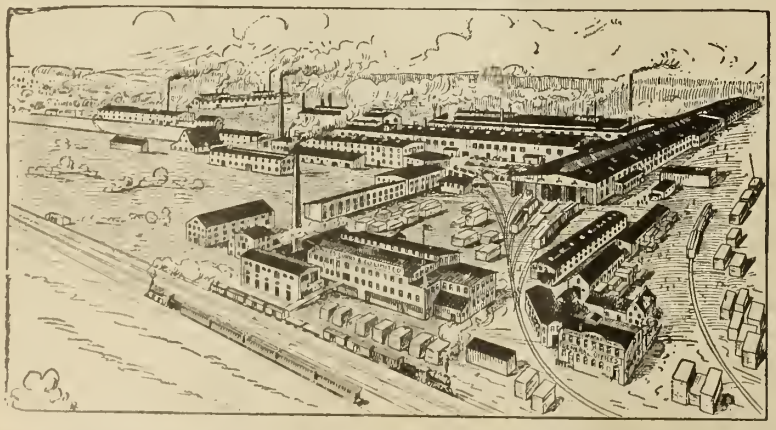

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the city. The new proposal provided for a portion of the work only, but the committee is of opinion that it is unwise to accept any proposal which does not include the entire line within the limits. (July, pg. 403).

St. Clair Tunnel Electrification.—We have been officially advised that the site for the power-house for the operation of the trains through the tunnel, is being prepared and that the necessary material for its construction and equipment is being assembled.

The Lord's Day Act

The Dominion Parliament at its last session passed an act respecting the Lord's Day, after considerable investigation before a special committee and discussion both in the Senate and the House of Commons. In the definition clauses the Lord's Day is said to be the period of time which begins at 12 o'clock on Saturday afternoon, and ends at 12 o'clock on the following afternoon; person has the meaning given it in the Criminal Code, 1892; vessel includes any kind of vessel or boat used for conveying passengers or freight by water; railway, includes steam railway, electric railway street railway and tramway; performance, includes any game, match, sport, contest, exhibition or entertainment; employer includes every person to whose orders or directions any other person is by his employment bound to conform; Provincial Act means the charter of any municipality or any public act of any Province whether passed before or since Confederation. The second section provides that "it shall not be lawful for any person on the Lord's Day, except as provided by the act or in any Provincial act, now or hereinafter in force, to sell or offer for sale or purchase any goods, chattels, or other personal property, or any real estate, or to carry on or transact any business of his ordinary calling, or in connection with such calling, or for gain, to do, or employ any other person to do, on that day, any work, business, or labor." The exceptions to this are mentioned in sec. 3., and include: Receiving, transmitting, or delivering telegraph or telephone messages; the conveying of travellers, and work incidental thereto, the continuance to their destination of trains, cars and vessels in transit when the Lord's Day begins, and work incidental thereto; loading and unloading merchandise at intermediate points, on or from passenger boats or passenger trains; keeping railway tracks clear of snow or ice, making repairs in cases of emergency, or doing any other work of a like incidental character necessary to keep the lines and tracks open on the Lord's Day; work before six o'clock in the forenoon and after eight o'clock in the afternoon of the yard crews in handling cars in the railway yards; loading, unloading and operating any ocean-going vessel, which otherwise would be unduly delayed after her schedule time of sailing, or any vessel which otherwise would be in immediate danger of being stopped by the closing of navigation, or loading or unloading before seven o'clock in the morning or after eight o'clock in the afternoon any grain, coal or ore carrying vessels after Sept 15; the operation of any toll or drawbridge, or any ferry or boat authorized by competent authority to carry passengers on the Lord's Day; the conveying of the mails and work incidental thereto; the operation by any Canadian electric street railway company, whose line is interprovincial or international, of its cars, for passengers traffic, on the Lord's Day, or any line or branch now regularly so operated; any unavoidable work on the Lord's Day to save property in cases of emergency, or where such property is in imminent danger of destruction or serious injury; any work which the Board of Railway Commissioners for Canada, having regard to the object of the act, and with the object of preventing undue delay, deems necessary to permit in connection with the freight traffic of any railway. The cost of all applications to the Board under this provision shall be borne by the applicant, and if more than one, in such proportion as the Board determines; notice of application, in which the reasons to be relied on shall be fully set out, shall be given to the Department of Railways and Canals; in all other respects the procedure under the Railway Act, 1903, shall, so far as applicable, apply.

Sec. 4 provides that, except in cases of emergency, persons engaged in connection with telegraph and telephone operations, or in connection with transportation on the Lord's Day, shall be allowed during the next six days, 24 consecutive hours without labor. Sec. 6 deals with excursions and prohibits excursions by any mode of conveyance for which a fee is charged, on the Lord's Day. Sec. 10 provides for the imposition of a penalty of not less than $1, or more than $40 and costs upon any person violating the provisions of the act. Sec. 11 imposes a penalty of not less than $20, or more than $100 upon employers, in addition to any other penalty prescribed by law for the same offence, for authorizing or directing breaches of the act; and sec. 12 provides that corporations permitting breaches of the act by employes shall be liable to a fine of not less than $50 or more than $250 for the first offence, and not less than $100 or more than $500 for each subsequent offence.

Sec. 13 enacts as follows: "Nothing herein shall prevent the operation on the Lord's Day for passenger traffic of any railway subject to the legislative authority of any province unless such railway is prohibited by provincial authority from so operating. Nothing herein shall prevent the operation on the Lord's Day for passenger traffic by any railway company incorporated by or subject to the legislative authority of the Parliament of Canada of its railway where such operation is not otherwise prohibited." It is provided by sec. 14, that the Dominion act shall not be construed to repeal or in any way affect any acts passed by the several provinces relating to the observance of the Lord's Day; by sec. 15, that no action thall be commenced without leave of the Attorney-General of the Province in which the alleged offence may have been committed, nor after 60 days from the time of the commission of the alleged offence, and sec. 16 sets forth that the act shall come into force Mar. 1, 1907.

A monument has been erected at Laggan, B.C., to the memory of Sir Jas. Hector, who discovered the Kicking Horse Pass in 1857, while on survey work with the Palliser expedition. The monument stands near the entrance to the pass, and was erected by geographers, geologists and scientific men in Canada and the United States.

The Board of Railway Commissioners will be represented at Ottawa during Aug. and Sept., by the Deputy Commissioner, M. E. Bernier; the Chief Commissioner and Commisioner Mills being on a trip to the Yukon, where they will dispose of the complaints as to excessive freight rates on the White Pass and Yukon Ry. The Commissioners will hold investigations at a number of other points in the West.

The scholarships at McGill College offered by the C.P.R. and the G.T.R. to their junior employes or sons of employes have been awarded at the recent matriculation examination as follows: C.P.R., to Mr. M. J. McHenry, son of J. C. McHenry, Train Dispatcher, Toronto Union Station. G.T.R., to L. G. McNab, son of W. McNab, Assistant Engineer, Montreal. Two scholarships were offered by each company, and of the six candidates who entered four failed to pass the examination.

ELECTRIC RAILWAYS.

Projects, Construction and Betterments.

Grand Valley Ry.—An act was passed last session of the Dominion Parliament authorizing the construction of a railway, to be operated by any motive power except steam, from Brantford to Woodstock; authorizing the making of agreements with the Brantford Street Ry., and the Woodstock, Thames Valley and Ingersoll Ry.; giving power to issue bonds to the extent of $30,000 a mile, and extending the time for the construction of the authorized lines. The company was originally incorporated in 1900 as the Port Dover, Brantford, Berlin and Goderich Ry. Co., the name being changed to the Grand Valley Ry. in 1902. The line has been constructed from Brantford to Galt, and the interests behind the company also own the Brantford Street Ry. and the Woodstock, Thames Valley and Ingersoll Ry., which it is now sought to amalgamate with the G.V. Ry. We have been advised that it is expected to let a contract for the construction of a branch line from Blue Lake to St. George, Ont., at an early date. (April, pg. 215.)

Hamilton, Waterloo and Guelph Ry.—J. Patterson, P. J. Myler, H. N. Kittson, J. M. Young, J. D. Cherrier, of Hamilton, Ont., were incorporated last session of the Dominion Parliament as a company with this title for the purpose of constructing a railway from Hamilton to Elmira, passing through Galt, Preston, Berlin and Waterloo, Ont.; and from Hamilton through Guelph to Elora and Fergus. Steam may be used on the line during the construction period, but not for operating purposes. The capital is $2,000,000 and bonds or other securities to the extent of $30,000 a mile may be issued. (July, pg. 413.)

Hull Electric Ry.—W. R. Baker, assistant to the President C.P.R., W. R. Taylor and other C.P.R. officials who constitute the Hull Electric Ry. management have been discussing the question of double tracking the line on Main St., Hull, Que., with a committee of the town council.

Huron and Ontario Ry.—An act was passed last session of the Dominion Parliament granting an extension of time for the construction of the various lines authorized; giving power to construct a branch line from Port Perry to near Whitby, or Oshawa, and from Goderich to Windsor, touching Parkhill and Strathroy, Ont.; and increasing its bonding powers from $20,000 to $25,000 a mile. A meeting of shareholders was called to be held at Toronto, July 27, for the purpose of authorizing the issue of first mortgage bonds, and for other purposes. (July, pg. 413.)

Montreal Street Ry.—A power house is being built at Notre Dame and St. Raymond streets, Montreal. It will be 288 x 150 ft. and about 70 ft. high, and will be of steel frame construction with brick exterior walls. There will be two chimneys cach 13 x 10 ft. diameter, by 225 ft., constructed on radial brick. The electrical equipment consists of five 3,000 k.w. vertical cross compound engines direct connected to five 2,000 k.w. generators, and two 1,500 vertical cross compound engines direct connected to two 1,000 k.w. generators. The ultimate boiler capacity will be 13,000 h.p. and the boilers will be the latest type equipped with chain grates, superheaters, economizers, etc. The engines will be equipped with barometric condensers. The plant will have a complete equipment of coal and ash handling machinery, and when completed, will be ranked among the largest and most complete power houses on the continent. A large force of men are at work on the foundations, and it is expected the building will be ready by March 1 next. The Canadian White Co., Montreal, has the contract.

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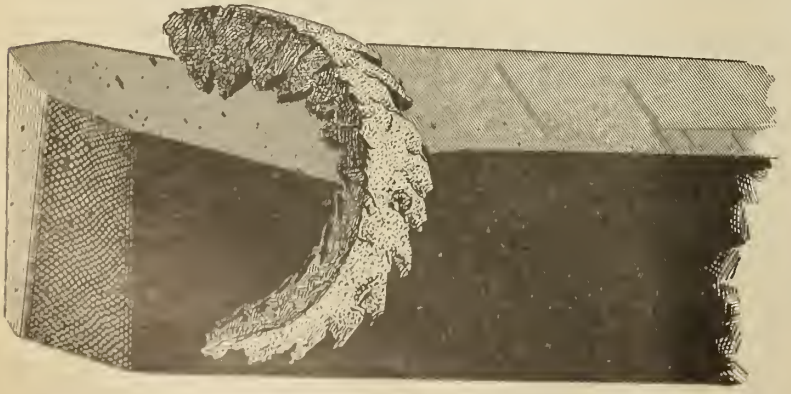

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Oshawa Ry.—A complaint having been made to the Board of Railway Commissioners that the line of the company upon the streets of that town is not conformable to the grades and constitutes a danger and obstruction, the Commissioners have entered into communication with the town authorities in respect of the matter.

Prince Albert, Sask.—T. G. Empie, New York, and A. W. Taylor, of Edmonton, Alta., have been in Prince Albert, Sask., interviewing the Mayor and other officials with respect to the establishment of an electric railway there. A fornial application for a franchise has been made to the city council.

Toronto, Niagara and Western Ry.—An act was passed last season of the Dominion Parliament changing the name of the Toronto and Hamilton Ry. Co. to the Toronto, Niagara and Western Ry. Co., authorizing the construction of an electric railway from near Hamilton to Windsor, Ont., and with the proper consent to a point in Michigan; fixing the capital at $6,000,000; approving an agreement with the Toronto and Niagara Power Co., respecting the use of the latter's right of way; authorizing the making of agreements with other companies, and extending the time for construction.

The President, F. Nicholls, has been in Hamilton, negotiating for the necessary right of way for the Hamilton to Windsor line. The proposal is that it will branch off from the Toronto-Buffalo line at Stoney Creek. (July, pg. 413.)

Windsor, Essex and Lake Shore Rapid Ry.—The Windsor City Council has granted a franchise in the city, permitting the use of T rails, but there is a condition attached providing that girder rails shall be substituted after three years, if the city so orders.

The Canadian Westinghouse Co. is supplying the equipment for the line as follows: Five double equipments of 100 h.p. single phase A.C. motors; two 500 k.w. single phase A.C. generators, and two 30 k.w., belted exciters, with the necessary switchboards, transformers, etc. (July, pg. 415.)

Electric Ry. Finance, Meetings, Etc.

British Columbia Electric Ry.—Gross earnings for May $89,942, against $72,090 for May, 1905. Working expenses $55,920; renewal funds $8,500; approximate income from investments $7,967; net income $33,489; against $39,953 working expenses; $6,695 renewal funds; $2,750 approximate income from investments, and $28,192 net income for May, 1905. Aggregate net earnings for 11 months ended May 31, $453,631, against $333,092 for same period 1904-05.

Halifax Electric Tramway Co.—Railway receipts for June, $15,225.27, against $12,795.75 for June, 1905. Total receipts for railway, electric light and gas, $27,364.82, against $24,779.67 for June, 1905.

Hamilton Street Ry.—The finance committee of the Hamilton City Council is considering a proposal made by the company with a view of rearranging the terms on which it operates in the city. The company pays $7,800 a year on mileage; 8% on its gross receipts; maintains the pavement on the streets for 2 ft. outside the outer rail on each track. and pays the regular taxes on its plant.

Hull Electric Co.—The officers and directors for the current year are: President, A. R. Creelman, K. C.; Vice-President, W. R. Baker; other directors, D. McNicoll, I. G. Ogden, J. Oborne, E. W. Beatty and E. Hanson. E. W. Beatty is a new director, replaeing C. W. Spencer, who retired on leaving the C.P.R. service. Mr. Spencer was Vice-President and General-Manager.

Judgment has been given in favor of the company in the case in which the Aylmer School Commissioners sought to collect school taxes upon the movable property of the company. The judge held that only the real estate of the company was taxable for school purposes.

Montreal Street Ry.—Passenger earnings for June, $281,211.41; total earnings, $287,594.93; against $244,435.79 and $248,200.46 for June, 1905. Working expenses $152,834.52; city percentage on earnings, $22,214.61; interest on bonds and loans, $15,366.32; contingent for renewals, $14,452.86; surplus, $82,726.62, against a surplus of $81,092.33 for June, 1905. Net earnings for nine months ended June 30, $1,367,193.06; surplus, $507,583.55, against $1,258,520.46 net earnings and $466,303.25 surplus for same period 1904-05.

Toronto Ry.—Car earnings for June $254,878.59 against $231,140.31 for June, 1905.

Electric Railway Notes.

The Toronto Ry. is equipping its cars with enamelled iron route name signs, supplied by Acton Burrows Limited, Toronto.

J. A. BURNETT,
Superintendent and Electrical Engineer, Montreal and Southern Counties Ry.

The Winnipeg citizens have voted 2,890 for and 1,647 against the by-law permitting the operation of electric railway cars in the city on Sundays.

A. M. Grantham, Purchasing Agent, Toronto Ry., has also been appointed Superintendent of Construction, Toronto Ry., and Toronto and York Radial Ry.

The London Street Ry. has added two new cars to its rolling stock, and proposes to rebuild a number of the cars now in use on the South London belt line.

The Toronto Ry. is preparing plans for the construction of a gasoline driven repair wagon, to be equipped with tower, wrecking crane, etc., to replace the present horse-drawn repair and emergency service wagons. We were advised, July 26, that the plans were still in embryo, and that it would be some time before anything definite was done.

J. A. Burnett, who has been appointed Superintendent and Electrical Engineer, Montreal and Southern Counties Ry., was born near Montreal, Sept. 14, 1873. After an apprenticeship of four years to 1896, of which one year was spent with the Canadian General Electric Co., Peterborough, Ont., he became chief draughtsman and Construction Engineer, Montreal Light, Heat and Power Co.

The charter of the City Ry. Co. of Windsor, Limited, has been surrendered and an order has been made by the Lieutenant-Governor of Ontario directing that the company shall be dissolved from Aug. 1. The City Ry. Co. of Windsor was the title of the original street railway company in Windsor, Ont., and is now amalgamated with the Sandwich, Windsor and Amherstburg Ry., which in turn is owned by the Detroit United Ry.

Some five years ago, an arrangement was made between the Toronto Ry. and the Toronto Suburban Ry. by which the former ran along Dundas St. to Keele St., Toronto Junction, instead of turning its cars at Humberstone Ave., as formerly. One John Brown claims to have discovered that the Toronto Ry. has not power to operate cars on Sundays, in Toronto Jnnction, and has issued a writ to recover penalties for breaches of the law. The Toronto Ry. has stopped the operation of its cars on the line in question on Sundays, pending the hearing of the action.

C. H. Rust, City Engineer of Toronto, recently reported to the City Council, on a petition protesting against the use of T rails by the Toronto Ry. Co., as follows: After an inspection made of this kind of rail in Minneapolis, St. Paul and Milwaukee, where the T rail is laid throughout the system, the company was granted permission to use a 7-inch T rail upon Dupont St., Gerrard St., and Roncesvalles Ave., and I feel satisfied that the method of construction adopted will not interfere in any way with vehicular traffic. There will be much less interruption to street railway traffic in the winter, as there will be no groove to clog with snow or ice. It is not the intention, however, to allow the T rail to be used in the central portion of the city.

The third annual report of the Montreal Street Ry. Mutual Benefit Association shows that during the year there was paid for death and burial insurance $4,050.01; for pensions, $215; for medicine, $1,826.86; for sickness and injury $8,706.70; and for management expenses $4,860.73. The surplus for the year was $8,995.08, and the total surplus now invested is $18,343.80. The income for the year included $10,757 members' fees and dues; $13,461.23, fees, dues, special donation, and expenses of management given by the company; and $6,482.14 interest and profits on picnic, making a total of $40,049.09. The membership numbers 1,846, which is practically all the employes eligible. The Committee of Management for the current year includes: D. McDonald (President), L. Trudeau, H. R. Lockhart, R. M. Hannaford, D. E. Blair, H. G. Taylor, P. Dubee, L. Charland, A. Lapierre, A. Leger, H. Thomson, W. Butler, F. X. Lacroix and J. Denault. The auditors are A. Stewart and J. E. Semper.

St. John, N.B., Railway Co.

At the annual meeting recently, the following report was presented: "The statement for the year ended April 30, shows a net profit, after providing for interest on bonds and all other charges, of $51,047.32, out of which the directors declared two half-yearly dividends of 3%, amounting to $48,000.00, leaving a balance of $3,047.32, which has been transferred to profit and loss account. At the last session of the N.B. Legislature the legislation passed in 1905, taking away chartered rights of the company without compensation, was repealed. It would have been a serious blow to the financial standing of companies in New Brunswick, if the legislation complained of had been allowed to stand. The directors have employed A. C. Swain, of Chicago, a gas expert, to thoroughly examine into its gas plant, and under Mr. Swain's advice, the company is reconstructing part of the works and making many necessary

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TERMS OF PAYMENT.

An actual settler may purchase not more than 640 acres, on the ten instalment plan by paying a cash instalment at time of purchase, interest at six per cent. on the unpaid purchase money at the end of the first year, and the balance of the principal with interest in nine equal instalments annually thereafter as shewn in the following table:—

160	Acres	at	$4.00	per acre,	cash payment	$95.85,	first year's interest	$32.64	and nine instalments of	$80.00
"	"		4.50	"	"	107.85,	"	"	"	36.73	"	"	90.00
"	"		5.00	"	"	119.85,	"	"	"	40.81	"	"	100.00
"	"		5.50	"	"	131.80,	"	"	"	44.89	"	"	110.00
"	"		6.00	"	"	143.80,	"	"	"	48.98	"	"	120.00
"	"		6.50	"	"	155.80,	"	"	"	53.05	"	"	130.00
"	"		7.00	"	"	167.80,	"	"	"	57.16	"	"	140.00
"	"		7.50	"	"	179.75,	"	"	"	61.22	"	"	150.00
"	"		8.00	"	"	196.70,	"	"	"	65.28	"	"	160.00

Purchasers who do not undertake to go into residence on the land are required to pay one-sixth of the purchase money down, balance in five equal annual instalments with interest at the rate of 6 per cent. per annum.

Interest at six per cent. will be charged on overdue instalments.

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changes, the result of which will give a better service to the public. The company is extending its street railway system in St. John West, and also building a short spur from the Asylum corner to Barnhill's corner in Fairville. These extensions will give increased accommodation to the public. The directors regret, however, that they cannot expect any increased net revenue from this expenditure. The company has acquired the Carleton Electric Light and Power Co.'s plant, and, as soon as the necessary improvements are made in connection therewith, will be able to give to the residents of the west side a lighting service equal to that of the east side and at a less cost than was paid by them to the Carleton Co. The Board has endeavored during the last year to give an improved service in all the branches of the business, and to meet the reasonable requirements of the citizens of St. John, and in this particular they think they have met with success."

ASSETS

Cost of property	$1,671,583.21
Accounts receivable	34,458.16
Stores	21,138.52
Cash on hand	600.00
Cash in bank	22,335.30
	$1,750,115.19

LIABILITIES

Capital stock	$ 800,000.00
Bonds	675,000.00
Accounts payable	95,615.69
Outstanding tickets	3,548.78
Dividend payable June 11	24,000.00
Contingent and depreciation	57,773.28
Profit and loss	94,117.44
	$1,750,115.19

INCOME ACCOUNT

Dividends—	
Paid Dec. 16, 1905	$ 24,000.00
Payable June 11, 1906	24,000.00
Transferred to profit and loss	3,047.32
Profits for the year, after providing for interest on bonds and all other charges	$ 51,047.32

The directors for the current year are as follows: President, Jas. Ross, Montreal; Vice-President, H. H. McLean; other directors: R. B. Emerson, J. Manchester, J. J. Tucker, W. Downie, M. Neilson, H. B. Robinson.

The Gasoline Driven Car.

By G. C. Royce of Toronto.

Experiments with railway motor car construction are being extensively indulged in by many of the railway systems, especially those in the Western States. Within the next few years a rapid development in this form of equipment may be expected which may amount to a practical revolution of existing conditions in railway operation. Three systems of motive power are at present being experimented with: The electric gasoline car: The steam car using crude petroleum fuel. The gasoline driven car. This latter car seems to have the advantage both in mechanical construction and operation, its factors being cheapness in operation, ease of service, and speed. It would seem that the steam roads will have in the gasoline car a system of operation which will successfully compete with their electrical rivals. Up to the present these cars have been confined to passenger service only, but I understand this will be extended to the carrying of local freight and express. It may be of interest to this convention to have a short description of this car.

Some radical departures have been made the design of the car body, an attempt ing made to reduce the effect of air resistce as far as possible. On this account the a of building them with a pointed front, cular rear and semi-elliptical roof is being ried out on those under construction. e windows are being made circular, ilar to the portholes of a ship, and dust proof, air circulation being obtained through a series of specially designed ventilators in the roof. Entrance is gained in the centre by a drop in the side through double hung doors swinging outwards, all steps being inside the car. The forward or pointed end of the car contains the motor and baggage compartment. The car bodies are constructed entirely of steel, being exceptionally light and strong, 56 ft. long, and having a seating capacity of 50 persons. The trucks are specially designed, the front one carrying the motor, which consists of six cylinder vertical marine type, rated at 100 h.p. This motor is so equipped as to be operated by one man. The consumption of gasoline is .57 gallons per car mile. This type of car is equipped with comparatively low power motors, as in order to operate economically under normal conditions internal combustion motors must be worked up to capacity.

The utility of the gasoline driven car is limited at its present stage of development to certain conditions of road and traffic, but there is no question in regard to its value as an auxiliary to take care of light local traffic on steam roads or in cases where charter requirements necessitate the immediate construction and operation of a projected line on which the traffic is not likely to warrant expenditures on power plant and overhead equipment. This system of motor power is also being applied to single truck cars in England, for which their manufacturers claim efficiency and economy.

Grain Elevator Notes.

Four elevators are reported to be under construction at Strassburg, Sask., the present terminus of the C.P.R. Pheasant Hills branch.

The capital of the Lucknow Elevator Co., Lucknow, Ont., has been increased from $2,000 to $7,000 under supplemental letters patent, granted under the Ontario Companies' Act.

Elevators are being built at Fort Saskatchewan, Bruderheim, Calvert, Laverne, Lavoie, and Manville, Alta., on the Canadian Northern Ry.; and at Stony Plain and Spruce Grove on the C.N.R. spur line west of Edmonton, Alta.

We were advised recently in regard to the press reports that the C.P.R. was about to erect grain elevators at Vancouver and other B.C. points, that no action had been taken by the company.

Grain elevators are being built at Ponoka, Leavings, Okotoks and Pincher Creek, Alta., on the Calgary and Edmonton Ry., and at Camrose on the branch easterly from Wetaskiwin, Alt.

The Montreal Grain Elevating Co.'s floating elevator no 7, while going down stream near St. Helen's Island, Montreal Harbor, July 2, collided with the str. Gaspesian, and inflicted considerable damage. The elevator was not materially damaged.

The grain elevator at Kingston, Ont., and other assets of the Frontenac Cereal Co., have been purchased by R. A. McLelland. It is stated that a new company will be organized to operate the business.

The Royal Trust Co., Montreal, has entered action against the Great Northern Ry. Co. to recover $32,268 rent for the Quebec elevator, leased by the railway company from the elevator company. The Trust Co. is suing as trustee of the bondholders of the elevator company. Two other suits between the same parties in this connection were recently decided by Justice Dunlop in favor of the Royal Trust Co. The railway company contested the actions, pleading that the transaction was beyond its powers and illegal, but this contention was dismissed by the judge.

Wm. Peterson, Ltd., in Liquidation.

A dividend of two shillings in the pound sterling, or 10%, has been declared by the Official Receiver, payable to the creditors of William Petersen, Limited, Newcastle-on-Tyne, Eng. The winding-up order was made Sept. 28, 1904, and the assets as realized to June 26, amounted to £13,356 9s. 2d., while the payments included £1,778 11s. 2d. for expenses, law costs, etc.; £245 5s. 4d. for preferred creditors, and £5,202 14s. 2d. for the 10% dividend, leaving £6,375 3s. 10d. in hand. One of the assets in the estate was a claim by the estate and Mr. Petersen personally, against Armstrong, Whitworth & Co., and others, for damages arising out of the failure of the latter to carry out an agreement with Petersen and his company to establish a line of steamers between Canada and ports in France. The case came on Mar. 28, and after it had been opened for the plaintiffs a compromise was effected, upon the advice of counsel, and with the approval of the Committee of Inspection appointed by the creditors, on the terms that the Armstrong firm paid £15,000 and taxed costs, and made no counterclaim. It had previously been arranged that the interest of the estate in the action was three-fourths, and Petersen personally, one-fourth. The total amount of the claim, apart from general damages, was between £40,000 and £50,000, it being impossible to state the exact amount, as all the claims had not been finally passed upon by the liquidator, and some appeared to be excessive. The proportion of the amount coming to the estate is £11,250, of which £750 is in the meantime retained by the company's solicitors, pending the taxation and settlement of their costs. Of the other assets, a shed valued at £500 at Montreal, may be recovered from a creditor there who claims a lien; the amount of £9,628 9s. 4d., shown by the books to be due from the Toronto Trading Co., also in liquidation, was disputed, but a compromise had been provisionally arranged which would probably bring between £600 and £700 into the estate; an amount of £4,463 8s. 2d. standing in the books against the Canadian Ocean and Inland Navigation Co., was also disputed, and was finally sold, with the approval of the Commitee of Inspection for £2,500. The surplus from securities, estimated at £12,196 7s. 2d., consisted as regards £9,785 of the assumed surplus in value of shares in the Canadian Lake and Ocean Navigation Co., after providing for a mortgage of £10,214; efforts are now being made in Canada to deal with this, but a realization of anything like £9,000 is sanguine. The balance in hand of £6,375 3s. 10d. has been reserved against claims of £40,310 not yet admitted for dividend and to meet various charges in the liquidation. It is hoped to pay a second and final dividend during the current year.

The G.T.R. has adopted a system by which passengers travelling over its line with the intention of taking a European trip, can have their baggage checked through from the starting point of their journey to the port of debarkation.

The Dominion Iron and Steel Co.'s annual report shows a surplus of $652,594 for the past financial year, after paying bond interest and sinking fund charges. The total sales for the year were: pig iron, 23,393 tons; billets and blooms, 17,145; rails, 101,245 tons; and wire rods, 45,553 tons. The company received during the year on bounties from the Government, $638,652.84. The bounties on pig iron and steel ingots have been reduced since July 1, and, unless extended, will cease altogether June 31, 1907.

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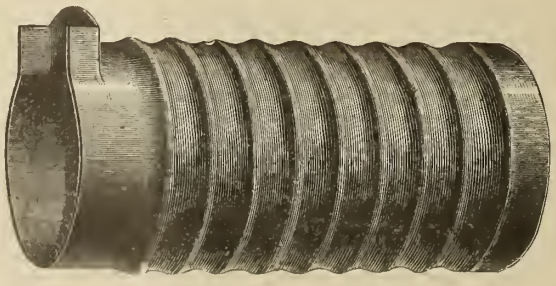

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MARINE DEPARTMENT

LIST OF STEAM VESSELS REGISTERED IN CANADA FROM JUNE 15 TO JULY 15.

Name.	No.	Where and When Built.	Engines, etc.	Length	B'dth.	Depth.	Gross tons.	Reg. tons.	Home Port.	Owners.
				ft.	ft.	ft.				
Alert	121,744	Selkirk, Man., 1905	Screw 8 N.H.P.	55.0	12.0	5.5	28	19	Winnipeg, Man.	Northern Fish Co. (Ltd.), Selkirk, Man.
Alma V	121,917	Kenora, Ont., 1906	" 2 "	68.0	13.5	3.5	56	38	Kenora, Ont.	S. & L. Villineauve, Kenora, Ont.
Argo	116,913	Wallaceburg, Ont., 1906	" 20 "	50.4	11.6	4.8	20	13	Sarnia, Ont.	D. Foster, Port Colborne, Ont.
Elsie	122,071	Trenton, Ont., 1906	" 10 "	69.0	16.3	5.4	48	33	Toronto, Ont.	Mrs. M. A. Clarke, Toronto, Ont.
Empress	116,309	Newcastle-on-Tyne, Eng.'06	" 365 "	255.0	34.2	20.0	1342	612	Charlottetown, P.E.I.	Charlottetown Steam Navigation Co.
Ena	121,748	Vancouver, B.C., 1906	" ½ "	22.6	6.4	2.7	2	2	Vancouver, B.C.	W. H. R. Collister, Vancouver, B.C.
Four Winds	121,750	"	" 1 "	26.0	9.7	5.8	8	5	" "	James E. Macrae, Vancouver, B.C.
Geisha	121,749	Hong Kong, China, ——	" ½ "	20.0	5.5	3.0	2	1	" "	Geo. Giles, et al, Vancouver, B.C.
Hummer	121,751	Vancouver, B.C., 1906	" 2 "	31.3	5.5	2.4	2	2	" "	Lelson & Burpee, Ltd., Vancouver, B.C.
Moto	121,815	Digby, N.S., 1906	" 6 "	45.0	10.4	4.3	15	12	Digby, N.S.	F. A. Robinson, Digby, N.S.
Portneuf	121,922	St. Joseph de Levis, Q., 1906	" 12 "	59.0	15.7	5.7	39	26	Quebec, Que.	J. S. Thom, Quebec, Que.
Sarto	122,061	Lachine, Que., 1905	" 6 "	56.5	8.6	8.1	18	11	Montreal, Que.	C. Desjardines, Montreal, Que.
W. D. Brock	117,036	Echo Bay, Ont., 1905	" 2 "	35.0	10.0	3.7	13	9	Sault Ste. Marie, Ont.	F. H. Lawrence, Echo Bay, Ont.

LIST OF SAILING VESSELS AND BARGES REGISTERED IN CANADA FROM JUNE 15 TO JULY 15.

Name.	No.	Where and When Built.	Rig.	Length	B'dth.	Depth.	Gross tons.	Reg. tons.	Home Port.	Owners.
Addie M	121,932	West Dover, N.S., 1905	Schr.	39.2	11.3	5.0	11	11	Halifax, N.S.	J. Morash, West Dover, N.S.
Alaska	117,096	Sampsonville, N.S., 1906	"	34.5	11.3	4.9	10	10	Arichat, N.S.	Sampson & Burke, St. Peters, N.S.
Annie Smith	121,890	Clyde, N.S., 1906	Sloop	34.0	12.0	6.0	13	13	Yarmouth, N.S.	W. L. Smith Port La Tour, N.S.
Big Salmon	121,971	Whitehorse, Yukon, 1906	Barge	106.4	34.5	5.7	161	161	Victoria, B.C.	British Yukon Nav. Co., Vancouver, B.C.
Carrie D	121,886	Cape Island, N.S., 1905	Sloop	32.0	11.0	6.0	10	10	Yarmouth, N.S.	T. Duncan, Cape Island, N.S.
Cavalier	121,999	Lunenburg, N.S., 1906	Schr.	40.5	12.2	5.7	13	13	Lunenburg, N.S.	L. Boliver, Broad Cove, N.S.
Confidence	121,997	La Have, N.S., 1906	"	48.2	16.8	7.0	35	35	" "	R. Walfield, La Have Islands, N.S.
Dominion	90,769	Port Arthur, Ont., 1905	Dred.	114.0	43.5	12.0	951	951	Port Arthur, Ont.	Great Lakes Dredging Co., Port Arthur, Ont.
Dorie	122,053	Shippigan Isld., N.B., 1905	Schr.	35.0	12.3	4.4	10	10	Chatham, N.B.	F. Chiasson, Lameque, N.B.
Dorothy	121.882	Barrington, N.S., 1905	Sloop	31.0	10.6	6.0	10	10	Yarmouth, N.S.	P. O. Smith, Port La Tour, N.S.
Ella Mason	121,994	Lunenburg, N.S., 1906	Schr.	74.2	22.4	8.7	74	74	Lunenburg, N.S.	J. D. Mason, Lunenburg, N.S.
Emma B	121,884	Cape Island, N.S., 1905	Sloop	31.0	10.6	6.0	10	10	Yarmouth, N.S.	W. S. Ross, Cape Islands, N.S.
Entrepid	121,747	Vancouver, B.C., 1906	"	27.2	15.2	4.8	8	8	Vancouver, B.C.	L. E. Jewett, Vancouver, B.C.
Fanny Rose	121,883	Tusket Wedge, N.S., 1906	"	36.0	12.4	7.0	15	15	Yarmouth, N.S.	C. E. Porthier, Tusket Wedge, N.S.
Genesta	121,885	Pubnico, N.S., 1906	"	35.0	11.5	6.6	13	13	" "	W. M. D'Entremont, Pubnico, N.S.
Kuroki	121,889	Barrington, N.S., 1905	"	30.0	11.4	6.0	10	10	" "	J. A. Newell, Cape Island, N.S.
Lelia	121,892	Shelburne, N.S., 1906	Schr.	75.0	21.2	8.7	72	72	Shelburne, N.S.	T. Moulton, Burges, Nfld.
Lena	121,887	Clyde, N.S., 1906	Sloop	30.0	11.0	6.0	11	11	Yarmouth, N.S.	A. D. Smith, Yarmouth, N.S.
Lizzie May	117,097	Larry's River, N.S., 1906	Schr.	37.0	11.8	5.6	12	12	Arichat, N.S.	B. L. Pelrine, Larry's River, N.S.
Madeline	116,919	Brooklyn, N.S., 1906	Sloop	44.0	13.6	7.0	16	16	Liverpool, N.S.	G. Godfrey, Brooklyn, N.S.
Manoa	121,995	Mahone Bay, N.S., 1906	Schr.	60.8	15.5	8.7	34	34	Lunenburg, N.S.	H. B. Ames, Montreal, Que.
Margaret	121,888	Cape Island, N.S., 1905	Sloop	31.0	11.0	6.0	10	10	Yarmouth, N.S.	B. Newell, Cape Islands, N.S.
Margaret S	121,998	Mahone Bay, N.S., 1906	Schr.	66.0	20.6	8.0	63	63	Lunenburg, N.S.	J. Schmiesser, La Have, N.S.
Marie Stella	117,150	Grand Desert, N.S., 1906	"	59.4	16.5	6.5	36	36	Halifax, N.S.	S. Lapierre, Grand Desert, N.S.
Mildred G. Myers	121,996	Lunenburg, N.S., 1906	"	66.3	20.0	7.6	55	55	Lunenburg, N.S.	F. Myers, Cole Harbor, N.S.
Morning Star	117,188	Shippigan Island, N.B., 1906	"	38.6	13.3	5.6	14	14	Chatham, N.B.	R. Noel, Shippigan Island, N.B.
Nita M	122,021	Liverpool, N.S., 1906	"	72.0	20.2	8.0	62	62	Liverpool, N.S.	W. C. Windsor, Wesleyville, Nfld.
No. 2	121,931	Dartmouth, N.S., 1905	Dred.	70.5	26.3	5.7	164	164	Halifax, N.S.	H. Beazley, Halifax, N.S.
Opal	122,052	Shippigan Isl'd, N B., 1904	Schr.	35.0	12.4	4.4	10	10	Chatham, N.B.	P. Chiasson, Lameque, N.B.
Orinoco	121,893	Lockport, N.S., 1906	Sloop	32.5	12.7	6.1	15	15	Shelburne, N.S.	J. B. Benham, Lockport, N.S.
R. G. Hervey	121,881	Cape Island, N.S., 1906	"	35.0	11.8	6.0	13	13	Yarmouth, N.S.	A Phillips, Cape Island, N.S.
St. Alexis	121,921	Grande Baie, Que., 1906	Schr.	68.0	21.0	6.6	52	52	Quebec, Que.	T. L. Simard, Grande Baie, Que.
Ste. Cecelia	117,189	Shippigan Isl'd, N.B., 1906	"	37.0	12.8	5.4	13	13	Chatham, N.B.	G. Ache, Lemeque, N.B.
Ste. Julie	122,051	" " " 1906	"	37.0	13.0	5.6	12	12	" "	O. P. Noel, Shippigan Isld., N.B.
St. Michel	121,670	La Petite Riviere, Que., 1906	Sloop	59.0	18.8	5.4	34	34	Quebec, Que.	E. Bouchard, La Petite Riviere, Que.
Saturn	117,190	New Bandon, N.B., 1906	Schr.	33.6	12.3	5.0	10	10	Chatham, N.B.	D. Blanchard, New Bandon, N.B.
Teslin	121,972	Whitehorse, Yukon, 1906	Barge	105.7	34.5	5.5	159	159	Victoria, B.C.	British Yukon Nav. Co., Vancouver, B.C.
Zoraya	122,000	Tancock Isld., N.S., 1906	Schr.	44.2	12.5	6.4	16	16	Lunenburg, N.S.	C. Levy, Tancock Island, N.S.

Great Lakes Freight Matters.

Our Winnipeg correspondent wrote on July 16: With a continuation of the present weather conditions for another five weeks, the western grain crop will literally swamp Canadian transportation interests, both rail and water, as with the increased acreage this season under cultivation and the extremely fine weather which has been the rule so far, there can be no doubt whatever of a total wheat crop of 100,000,000 bush., with other grain in proportion, and from present indications the experience of last season will again be repeated, as the eastern railways do not appear to realize with what leaps and bounds the western country is forging ahead, and have not made preparations to keep their end of the spout running freely by having a sufficiently large supply of cars available to handle the business. This will, of course, re-act on the Canadian vessel interests, and the cry of "hold-up" rates will again be heard from shippers, whereas the Canadian merchant marine is easily able to handle all business that the western railways can put to the lake front before the close of navigation, provided, of course, that the eastern terminal elevators are able to give them reasonable despatch.

Freight matters are very quiet, as grain stocks at the lake front have dropped below the two million bushel mark, and will probably remain at about the same figures until the new crop commences to move, and for the time being the liners are taking care of most of the movement, with but an occasional cargo offering for outside bulk carriers.

Rates on wheat are now quoted at 1½c. to Georgian Bay ports, 1¼c. to Buffalo, and 5½c. to Montreal direct, with tonnage plentiful.

R. Bickerdike, J. Herbert, B. Christie, F. A. C. Bickerdike, Summerlea, Que.; D. A. Campbell, J. Gowan, Montreal, were incorporated last session of the Dominion Parliament with the title of the Anglo-Canadian Insurance Co. The capital stock is fixed at $1,000,000, and the company is authorized to carry on a general ocean marine, fire, inland marine, and transportation insurance business. The head offices are to be in Montreal.

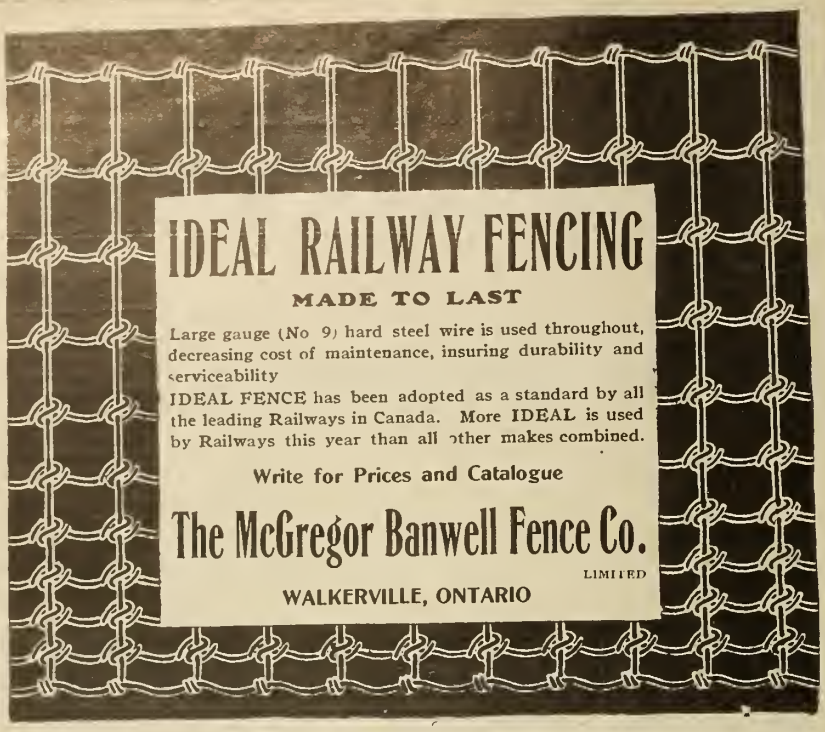
Marine Notes from the Twin Ports.

Our Port Arthur correspondent wrote on July 19: The grain movement out of the twin ports has been far above the average for the summer months; about 1,000,000 bush. weekly since June 1. Up to date 18,000,000 bush. have gone forward; of this 15,000,000 have gone through all Canadian channels. Oat shipments keep mounting up, and are now about the 2,000,000 bush. mark. Flax is taking its place among the large figures also. Of the 39,500,000 bush. of grain passing eastbound through the Sault Ste. Marie canals, up to July 1, about 17,000,000 went out of these ports.

Receipts average about 70,000 bush. daily at present. It is expected that the lake movement this season, of the 1905 crop, will reach 25,000,000 bush.

The summer rate of 1½c. to Georgian Bay ports and Lake Huron has been well maintained by all vessel owners.

This has been an exceptionally bad season for heavy fogs, and emphasizes the necessity for more coast aids, in the shape



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Lv. Collingwood 1.30 p.m., Owen Sound 11 p.m., Tuesday, Thursday and Saturday. First trips to Mackinac Island and Pelaskey June 26th, 28th and 30th.

For Parry Sound and North Shore Ports.

Lv. Collingwood 8 a.m., Penetang 2 p.m., Midland 3 p.m., Mondays and Thursdays, via Inside route.

For Soo, Port Arthur, Fort William and Duluth.

Lv. Sarnia 3.30 p m. June 1st, 4th, 11th, 13th. Sailings June 4th and 13th going through to Duluth. Regular sailings Monday, Wednesday and Fridays from June 18th.

TICKETS AND INFORMATION FROM ALL RAILWAY AGENTS.

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H. H. Gildersleeve, Mgr., COLLINGWOOD

C. A. Macdonald
A.T. & P. A.
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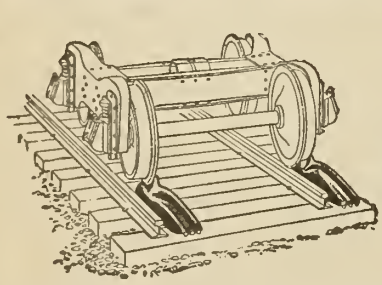
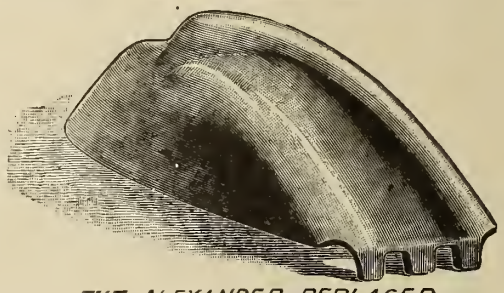
C. H. Nicholson
Traffic Mgr.
SARNIA





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of steam fog whistles and bells. Canadian tonnage has been very fortunate in meeting with few accidents, due to the great care exercised, and the experience of the vessel masters. U.S. tonnage on the other hand has had an expensive experience, reaching in one week the large total of $250,000 in damages to vessel property, directly due to fog. These figures are so alarming that U.S. vessel owners are taking steps to prevent the reckless navigation of their ships. It is claimed that many of their vessels do not conform to the rules regarding navigation in fog.

The U.S. Government have determined to build a third lock at Sault Ste. Marie, Mich., to be located directly north of the Poe Lock. It will be built to accommodate 25 ft. draft, and is estimated, roughly, to cost $10,000,000.

Efforts are being made by Victoria, B.C., shippers to revive negotiations for the establishment of a regular steamship service between Canadian and Mexican ports on the Pacific.

The str. Arctic, Capt. Bernier, which sailed from Sorel, Que., July 14, for patrol duty in Hudson Bay and adjacent waters, put back to Quebec a few days later for repairs, having been in collision with a steamer. It was expected that the repairs would occupy two weeks. On resuming her voyage the Arctic will first visit Churchill and Fullerton, on Hudson Bay, and proceed thence through Hudson and Davis Straits to Lancaster Sound, where she will touch at Pond's Inlet, and will then proceed north, probably to Cape Sabine, on Smith's Sound.

The British Merchant Shipping Act of 1894 enacts that whenever it appears to the Government that the tonnage regulations of the act have been adopted by any foreign country and are in force there, an order-in-council may be issued directing that the ships of that country shall, without being remeasured, be deemed to be of the tonnage denoted in their certificates of registry, or other national papers. Such an order has been signed in respect of Italian vessels, and the Dominion Government has issued a notification to that effect.

Atlantic and Pacific Ocean Marine.

The C.P.R. str. Lake Michigan recently passed down the St. Lawrence ship channel drawing 28½ ft. of water.

London, England, papers of July 3 report that proposals are under consideration there in connection with the Atlantic, Quebec and Western Ry., to make Gaspe, Que., a port for ocean-going steamers.

Montreal merchants are taking steps to have brought before the Dominion Government the necessity of establishing an additional mail by the Dominion Line steamers leaving Montreal on Saturday mornings.

The Thomson Line S.S. Cervona, from Montreal to Glasgow, went ashore near South Point, Anticosti Island, July 10. Four tugs were sent to her assistance, and it was expected she would be got off without serious damage.

The Elder-Dempster S.S. Memnon has been chartered to run in the Pickford and Black service between Halifax, N.S.; Bermuda and West Indian Island ports, to take the place of the Quebec Steamship Co.'s str. Caribie, the charter of which has expired.

The repairs to the Donaldson Line S.S. Hestia, which recently went ashore off Cape Sable, were made at Halifax, and included the replacing of 67 plates. They were completed so as to permit her resuming her route at the end of July. The work occupied nearly a month.

The Elder-Dempster S.S. Angolia, from Vera Cruz, Mexico, to Montreal, ran ashore near Louisbourg harbor, N.S., July 10, and is expected to become a total wreck. The company's S.S. Etolia, which went ashore at Cape Sable, June 10, has been lightened, but it is not expected that she can be towed off.

The C.P.R. S.S. Empress of Ireland made more than 20 knots an hour on her speed trials on the Clyde; and was taken over from the builders June 21. The sea trials were made round Ireland, and the steamer left Liverpool, for Quebec, June 29, arriving off Rimouski, at 4.30 p.m., July 6, and at Quebec on the following day.

The first of the two new turbine steamers for the Cunard Line was launched at Glasgow, Scotland, July 6, and named Lusitania. She has a length of 790 ft.; a beam of 88 ft., and her gross tonnage is 32,500 tons. The turbine engines will have approximately 70,000 indicated h.p., estimated to give a speed of 25 knots an hour.

A court of inquiry sat at St. Johns, Nfld., recently to investigate the cause of the stranding of the Loyal Briton, near Cape Race, while on a voyage from Penarth, Wales, to Chatham, N.B. While it was considered that Capt. Davis had been guilty of errors in reading his chronometer and in not using the lead, the court decided not to deal in any way with his certificate.

The M. S. Dollar Co., San Francisco, Cal., has purchased the steamers Ryohi Maru, and Montara from the Japanese Government for £15,150 and £13,425 respectively. These vessels, formerly known as the M. S. Dollar, of Victoria, B.C., and the Williamette, respectively, were captured by the Japanese during the war with Russia, for carrying contraband of war.

The underwriters have paid total loss claims upon the Allan Line S.S. Bavarian, which went ashore on Wye rock, near Quebec, in the fall of 1905. All hope of some successful salvage operations have not yet been abandoned, as representatives of several wrecking firms have inspected the vessel as she lies on the rocks, with a view of seeing what may be done.

The new steamer Cassandra, for the Donaldson Line, was launched on the Clyde, Scotland, June 28. She will have a cargo capacity of 8,000 tons, and will have accommodation for 200 cabin and 1,000 third-class passengers. The company is at present running the S.S. Athenia between Glasgow and Montreal, carrying passengers and freight, in addition to its regular freight steamers.

The new arrangements for carrying the Canadian mail to England will come into effect Friday, Aug. 3, when the Allan Line S.S. Virginian will leave Montreal, and will be followed on Aug. 10 by the C.P.R. S.S. Empress of Ireland. The Allan Line S.S. Victorian and the C.P.R. S.S. Empress of Britain will take the following trips and the service will be continued by the steamers in the order given.

By an act passed last session of the Dominion Parliament, respecting the safety of ships and the prevention of accidents on board, chap. 63 of the Statutes of 1903 is repealed, and also sub-sec. 1, sec. 7, chap. 77 of the Revised Statutes. This sub-section is replaced by a new one providing that between Oct. 1 and Mar. 16 there shall not be permitted to be loaded on the deck of any vessel sailing from Canada to the United Kingdom, or to a port north of Cape Finistere, Spain, lumber, the units of which are more than 15 cubic ft. capacity; or any more than five spars; or deals, battens or other light wood goods beyond certain heights. In the case of a leak the master may allow the cargo to be placed on the uncovered spaces on deck as may be expedient. The act is to come into force upon proclamation by the Governor-in-Council.

The Allan Steamship Co. has placed an order with Barclay, Curle & Co., on the Clyde, Scotland, for a passenger cargo steamer, to be fitted with triple expansion reciprocating engines, to give a speed of 16 knots an hour. She will have the following general dimensions: length, 500 ft.; breadth, 60 ft.; depth, 41 ft.; and will have accommodation for 100 first cabin, 300 second cabin, and 1,000 steerage passengers. This is the vessel to which reference has already been made as having been ordered to replace the Bavarian. We are also advised that it is intended to order another steamer for the

Sault Ste. Marie Canal Traffic

Following is a statement of the lake commerce passing through the Sault Ste. Marie canals during, June, 1906:

EASTBOUND

Articles		Canadian Canal	U. S. Canal	Total
Copper	Net tons	1,537	9,675	11,212
Grain	Bushels	2,560,832	2,419,066	4,979,898
Building Stone	Net tons	.....	.....	.....
Flour	Barrels	246,423	329,305	575,728
Iron Ore	Net tons	413,852	4,776,447	5,190,299
Iron, Pig	Net tons	3,360	3,136	6,496
Lumber	M. ft. B. M.	8,025	118,501	126,526
Silver Ore	Net tons	.....	.....	.....
Wheat	Bushels	2,456,111	1,562,458	4,018,569
General Merchandise	Net tons	16,497	8,611	25,108
Passengers	Number	1,909	1,598	3,507

WESTBOUND

Coal, hard	Net tons	8,600	81,529	90,129
Coal, soft	Net tons	141,030	858,821	999,851
Flour	Barrels	180	.....	180
Grain	Bushels	6,749	.....	6,749
Manufactured Iron	Net tons	14,356	38,570	52,926
Salt	Barrels	18,218	52,112	70,330
General Merchandise	Net tons	86,451	58,465	144,916
Passengers	Number	2,205	1,804	4,009
Freight:				
Eastbound	Net tons	599,730	5,125,778	5,725,508
Westbound	Net tons	254,487	1,045,240	1,299,727
Total Freight	Net tons	854,217	6,171,018	7,025,235
Vessel Passages	Number	897	2,348	3,245
Registered Tonnage	Net tons	873,163	4,809,158	5,682,321

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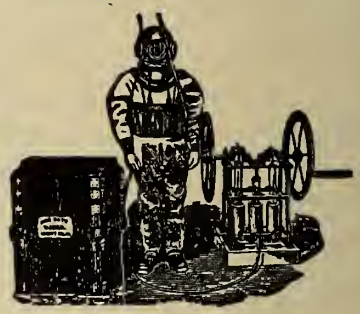

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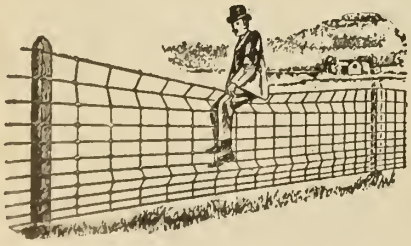

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Glasgow-Montreal trade, which is also to be fitted with triple expansion reciprocating engines, capable of making 15½ knots an hour. The dimensions of this steamer will be: length, 485 ft.; breadth, 60 ft.; depth, 41 ft.; and she will have accommodation for 100 first cabin, 250 second cabin, and 1,000 steerage passengers. The order for this steamer had not been placed July 19.

Attention has been called in certain of the technical papers to the fact that there are only three ports in the world which are accessible at all states of the tide to vessels drawing 30 ft. of water, viz.: Marseilles in France, Genoa in Italy, and Tacoma, Wash., U.S.A.; and that of the great ports of the world, London, Liverpool and Southampton, in Great Britain; New York and San Francisco in the U.S., and Quebec in Canada could be reached by such vessels under moderate restrictions. This does not imply that these ports and many others not named, cannot be reached by vessels of 30 ft. draught or over at spring tides. At the present time there are wet and dry docks at nine British ports where there is a depth of from 30 to 35 ft. on the sills, independent of the Government docks at the naval ports. The docks available for large ocean-going steamers in Canada and Newfoundland are the following:

	Length over blocks.	Width at entrance.	Depth on sill.
St. Johns, Nfld.....	558 ft.	85¾ ft.	25 ft.
Quebec, Que.....	445 ft.	62 ft.	25½ ft.
Halifax, N.S.....	548 ft.	89 ft.	30 ft.
Esquimalt, B.C.....	430 ft.	65 ft.	26½ ft.

The dimensions of the proposed dry dock at St. John, N.B., have not been finally determined upon, but they are expected to be large enough to receive the largest ocean-going steamers trading to Canada.

Maritime Provinces and Newfoundland.

The Dominion Department of Marine has made the following appointment: J. T. Spencer, harbormaster, Apple River, N.S.

The Dominion Government has appointed R. G. Laver wharfinger at Riverside, N.S.; and C. Gilbert wharfinger at Parrsboro, N.S.

The name of the new Plant Line str. Beverley, official number 106,075, registered at Halifax, N.S., has been changed by order-in-council to A. W. Perry.

The coasting str. Beaver ran ashore near Riverside, N.B., June 28, and after being lightened was got off. A survey showed that she had not sustained any damage.

Another steamer is under construction for the St. John-Bay of Fundy trade. The hull is being built at Margaretville, N.S., and the engines will be put in at Yarmouth, N.S.

The Black Diamond Line str. Bonavista has returned to her route from Montreal to Sydney, N.S., and St. Johns, Nfld., after having undergone a thorough inspection and overhaul.

G. Robertson informed the St. John, N.B., City Council, July 4, that a contract had been arranged for the construction of the dry dock there. It is estimated that the dock will be completed in 18 months after the work is actually started.

The Charlottetown Steam Navigation Co.'s new str. Empress has been making regular trips on the Point du Chene-Summerside route since she arrived out from England. The Northumberland, hitherto on the route, is now on the Charlottetown-Pictou run.

The Newfoundland Department of Marine has had placed in position a number of buoys to mark dangerous places on the coast. The Department has under consideration the desirability of placing buoys and other aids to navigation at other points on the coast.

The Plant Line Co.'s new str. Beverly went on her run between Boston, Mass., and Sydney, N.S., via Halifax, N.S., June 23. The company has chartered the str. Pretoria, a 3,000 ton vessel, and put her on the route from Boston to the Maritime Provinces July 7.

The Reid-Newfoundland Co.'s str. Virginia Lake has been put on her run for the season from St. Johns, Nfld., to Labrador coast points. The engines have been thoroughly overhauled, the passenger accommodation rearranged, and some new machinery has been added to expedite the handling of cargo.

Province of Quebec Marine.

A. Peters has been appointed wharfinger of the Dominion wharf at Magog, Que.

A steamer which was named Rouville, by Lady Laurier, was launched at the Government dock, Sorel, recently. The new steamer is intended for patrol service on Hudson Bay.

An order-in-council has been passed declaring the port of Tadousac, Que., to be a port to which the act relating to harbor masters shall apply, and defining the limits of the harbor.

The bridge to connect the water front of Montreal with the Victoria Pier is being built for the Harbor Commissioners by the Canadian Bridge Co., Walkerville, Ont., and is expected to be opened in Sept.

The Dominion Parliament last session passed an act authorizing the Government to make advances to the Montreal Harbor Commissioners, as may be required, to the extent of $250,000, for the purpose of redeeming debentures issued in 1876 and now falling due.

Jas. Currie, who died at Lachine, Que., July 10, aged 87, was formerly well known in marine circles at Kingston, Ont., and Montreal as a designer of steamers. Among the vessels he designed were the Spartan, Grecian, Corinthian, Peerless, Campana and Vermont.

Last session of the Dominion Parliament an act was passed authorizing the Richelieu and Ontario Navigation Co., with the approval of its shareholders to issue additional bonds or debentures, to an extent not exceeding 75% of the actual paid-up stock of the company.

The Department of Marine has placed an order at the Government dockyard, Sorel, Que., for the construction of a spoon dredge for work on the St. Lawrence ship channel at Cap a la Roche. The dredge is expected to be completed in time to be put at work during the season of 1907.

The str. Gaspesian had a hole 3 by 1½ ft. knocked in her side, July 5, just below the water line, by one of the floating elevators belonging to the Montreal Grain Elevator Co. To prevent her sinking the Gaspesian was run ashore at St. Helen's Island. She was subsequently floated and put in dry dock for repairs.

A bill was introduced in the House of Commons and read a first time June 29, at the instance of the Minister of Marine, for the purpose of making it obligatory on all vessels navigating the St. Lawrence River between Montreal and Father Point, to take on pilots. The bill met with some opposition and will be given further consideration.

The first of the new steamers for the Lake St. John and Saguenay Navigation Co. was named Pigouagami, and was put on her run at Roberval, Lake St. John, Que., July 5. The occasion was celebrated by a dinner at which the principal guests were the Provincial Minister of Colonization, members of the provincial legislature, and representatives of the Quebec and Lake St. John Ry.

The coroner's jury at Montreal has returned a verdict of accidental death in the case of the recent explosion in the boiler room of the str. Restigouche, by which Geo. Veale, a fireman, was killed. The cause of the explosion was the use of kerosene oil to clean the boiler, and the jury was informed by Assistant Steamboat Inspector Harpin, that it was a rule of the Marine Department that no oil of any kind was to be used for the cleaning of boilers unless a special permit was obtained.

The dredge Galveston, which reached Quebec, July 1, was built in Great Britain for harbor work at Galveston, Texas, but was found to be too large for the work, and was bought by the Dominion Government. The Galveston is a dredge of the sand pump type, and is 233 ft. long, 39 ft. broad and 15 ft. 5 ins. deep. She has a hopper capacity of 1,400 cubic yards and can fill the hoppers in fifty minutes, while she can dredge to 55 ft. Her two section pumps have an outside diameter of 8 ft. 6 ins., and her engines are of 600 horse-power driving twin screws. She is to be used for dredging the Crane Island flats.

The question of the accommodation and equipment of the port of Quebec is being very generally discussed by marine men and those interested in the moving of freight. It is stated that no port in the world is so devoid of the facilities for handling cargoes as Quebec; that the Department of Public Works does not understand the necessities of the port and is too slow in acting; and that the present Harbor Commission is a practically useless body. One civil engineer is reported as having said all harbor commissions should be abolished, and that the Government should establish a Dock and Harbor Department with a responsible minister in charge, who would have a competent representative at every port with a staff of assistants to study out the problems of improvement.

Ontario and the Great Lakes.

The str. Manita was somewhat damaged by fire at her dock at Bobcaygeon, Ont., recently.

W. E. Schulties has been appointed wharfinger of the Dominion Government wharf at Pelee Island, Ont.

The tug Alfred W., belonging to the Duluth and Lake Superior Dredging Co., struck a rock off Pie Island, Lake Superior, June 28, and sank, the crew escaping in their boat.

The Detroit, Belle Isle and Windsor Ferry Co. has placed its new str. Britannia on the route. Capt. R. E. Ferguson has been appointed master, and H. McAlpine chief engineer.

The Department of Railways and Canals received tenders to July 26 for the construction of a turning basin and dock, and other work on the east side of the Welland Canal, south of Welland, Ont.

The Prescott Terminal Co., a Dominion incorporation, has been granted a license under the act respecting the licensing of extra-provincial companies. F. J. French, of Prescott, Ont., has been appointed its attorney.

The St. Lawrence River Steamboat Co., a Dominion incorporated company, has been granted a license under the Ontario Act respecting extra-provincial companies. J. L. Whiting, Kingston, Ont., has been appointed its attorney.

The new steamer Algonquin, which the Huntsville, Lake of Bays and Lake Simcoe Navigation Co. is completing, was expected to go on her route from Huntsville to the

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Portage, in the Lake of Bays District, for the early August holiday traffic.

The str. Monkshaven, which was blown ashore at Pie Island, Lake Superior in the fall of 1905, is likely to be a total loss. The str. was owned by the Algoma Central and Hudson Bay Ry., was built in Great Britain in 1882, and was 1,414 gross tons.

The steel tow barge, which the Montreal Transportation Co. is having built on the Georgian Bay, was launched June 27, and named Ungava. Her dimensions are: length, 206 ft.; breadth, 41 ft.; depth, 19 ft. She has a capacity for 85,000 bush. of grain.

The str. Dundurn which has been put on the run between Hamilton and Montreal, by the Hamilton and Montreal Navigation Co., left Hamilton on her first trip July 14. Capt. J. Malcolmson is master. A. B. MacKay, Hamilton, the company's manager, was on board for the trip.

Navigation on the Rideau Canal was interrupted for some time owing to breaks at the Washburn and Kingston locks at the end of June. The last named was repaired in about a week, but a dam had to be built round the former, and the necessary repairs were completed about July 14.

The following appointments have been made by the Dominion Government: E. Borron, harbor master, French River, Ont. County Court Judge D. F. MacWatt has been appointed Surrogate Judge in Admiralty of that portion of the Toronto Admiralty District comprising the county of Lambton, Ont.

G. Y. Wisner, one of the United States representatives on the International Waterways Commission, died at Detroit, Mich., July 4, aged 65. He was a civil engineer and during his professional career made surveys of the Great Lakes for the U.S. Government, and was one of its representatives on the Deep Waterways Commission.

The Frontier Transit Co. has been organized at Buffalo, N.Y., with J. J. Boland at its head, to take over the str. Winnipeg, now on the run from that city to Port Arthur, Ont., and to cut her down to a single deck vessel. The Winnipeg was formerly the Anchor Line str. Juanita. Another steamer is to be acquired to take the place of the Winnipeg.

The United States Government proposes to construct a third lock at Sault Ste. Marie. It will accommodate vessels having a draught of 25 ft., and is estimated to cost $10,000,000. The Lake Carriers' Association has been informed by the authorities at Washington that the Rivers and Harbors Bill to be introduced next year will contain an appropriation on account of the work.

The Dominion Department of Public Works has passed an order for the building on Georgian Bay of three 500 yard steel hopper scows for its dredging branch. These will be of a very modern design, their dimensions being as follows: Length over all, 144 ft.; beam, 30½ ft.; depth, 11½ ft.; no. of hoppers, 8. The hopper doors will be operated separately by steam appliances.

The question of the renewal of the franchise of the Detroit, Windsor and Belle Isle Ferry Co., is under consideration by the Dominion Government. The present franchise has three years to run, but the company is desirous of obtaining a renewal. The Mayor of Windsor, Ont., and a committee representing the citizens had an interview with members of the Government on the subject, June 29.

The str. Scottish Hero, heretofore engaged in the coal trade in the St. Lawrence River and Gulf, was cut in two at Levis, Que., to enable her to be towed through the St. Lawrence and Welland canals. The two halves were placed in the dry dock at Buffalo, and reunited, the work being completed July 18.

THE STR. JAMES WHALEN BREAKING THROUGH 30 INCHES OF BLUE ICE OFF PORT ARTHUR, ONT.

The steamer will be operated on the Upper Lakes by the Canadian Lake and Ocean Navigation Co.

The Matthews Steamship Co., Ltd., of which J. T. Matthews, Toronto, is Managing Director, is having built on the Tyne, England, a double deck package freight steamer to run between Montreal, Port Arthur and Fort William. Her dimensions will be: length of hull, 256 ft.; beam, 42½ ft.; depth of hold, 23 ft. The engines and boilers will be of the most modern type. She is to be named Edmonton, and is expected to leave for Montreal early in August.

The steel icebreaking tug, James Whalen, of which an illustration is given on this page, was built at Toronto, 1905, and was delivered prior to the closing of navigation, so as to be ready for use in breaking up the ice in the harbor at the opening of the current season. The steamer's dimensions are: length, 108 ft. over all; breadth, 24 ft.; depth, 13 ft.; tonnage—gross, 313 tons; register, 156 tons. The engines are of the fore and aft compound type, cylinders 26 and 40 in. diameter by 36 in. stroke; and having 66 n.h.p.

Turret Crown Limited, is the title of a company incorporated under the Dominion Companies' Act with a capital of $125,000 and offices at Toronto, to own and operate steam and other vessels; to build and acquire docks, elevators, warehouses, etc., to carry on the business of common carriers, etc. The provisional directors are: A. W. Mackenzie, D. B. Hanna, L. W. Mitchell, G. G. Ruell, G. F. Macdonnell, of Toronto, all of whom are connected with Mackenzie, Mann & Co. The company will operate the str. Turret Crown.

The Niagara and St. Lawrence Navigation Co. is running the str. Iroquois on a triweekly schedule between Lewiston and Alexandria Bay, N.Y., calling at a number of ports on the south shore of Lake Ontario. The Iroquois is a screw steamer, having a length of 225 ft. and a breadth of 36 ft., with state-room capacity for 130, and capable of making 20 miles an hour. F. W. Wheeler is President and General Manager, and G. F. Clark Traffic Manager; the company's offices being 733 Ellicott Square, Buffalo. This is a new company, and it is expected that another steamer will be added next year.

Manitoba, Saskatchewan, Alberta, Etc.

In connection with the navigation of the Athabasca River and connecting waters, an interesting feature was the recent transportation of a boiler, weighing 10 tons, from Edmonton to Athabasca Landing, about 100 miles.

The str. Northern Light was launched at Athabasca Landing, Alta., June 23, and was expected to leave for Lesser Slave Lake early in July. She was built and is owned by Captain Barber.

The Dominion Government is having a snag boat built at West Selkirk, Man. The object of the construction of the steamer is to improve the navigation of the Winnipeg River between Fort Alexander and the lake, about five miles.

Capt. D. M. Howard, writing about the navigation of the Mackenzie River, and the Arctic ocean adjacent to its delta, says there is a small steamer owned by the Hudson's

Bay Co. at Fort Simpson, but it is out of repair. The summer travel from the Mackenzie delta to Herschell Island, and to Boultie Island, is by whale boat, and the coast to both islands is dangerous to navigation. The whaling vessels sent out from San Francisco usually winter at these islands, coming in as soon as there is open water one season, and leaving before the freeze-up the next year. The ocean is usually open from the beginning of July to the second week in Sept. Five whaling steamers wintered at Bailey Island, and seven at Herschell Island in 1905-06. At the latter place there was also the steamer Gjoa, which sailed from Norway in 1903 to locate the north magnetic pole, and which in doing so made the north-west passage.

The Dominion Government has established submarine bells at a number of points in the Gulf of St. Lawrence, and on the shores of the Maritime Provinces. These stations are located as follows: In connection with the lightships at Lurcher shoals, Anticosti, Red Island, White Island Reef, and Prince Shoal; in connection with the bell buoys at Egg Island, Sambro and Halifax Harbor; and in connection with the Chebucto Head shore station. Thirty steamships trading to Canada from Great Britain, as well as from U.S. ports, and Canadian coastwise ports, have been equipped with the submarine receiving apparatus.

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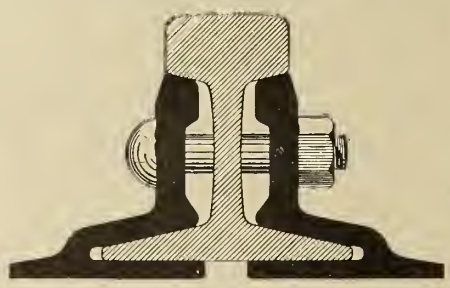

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B.C. and Pacific Coast Marine.

The Dominion Government has purchased the fishing schooner North, which was recently seized on the Pacific coast for illegal fishing, for $6,000.

J. P. Rogers, General Manager of the Conrad Mining Co., Windy Arm, Alaska, has purchased a gasoline launch for use on Windy Arm, and adjacent waters.

Plans are said to have been completed for the construction of an excursion type steamer for the C.P.R. Pacific coast service. It is stated that the steamer will be built at Vancouver, B.C., in 1907.

The German str. Mariechen, which was wrecked at False Bay, Alaska, subsequently floated and towed to Esquimalt, B.C., is to be sold by auction. The cost of repairing her is estimated at $85,000, which the underwriters will not undertake.

The C.P.R. str. Princess May, which underwent extensive alterations last winter, was put on her route from Vancouver, B.C., to Alaskan ports, June 24. The cabins and other internal arrangements have been altered so as to conform to those of the Princess Victoria.

Notices to Mariners.

The Department of Marine has issued the following notices to mariners:

No. 53. June 6.—Quebec—118. River St. Lawrence, Rimouski, light established.

No. 55. June 6.—New Brunswick—122. South coast, Bay of Fundy, off Mispec, bell buoy established. Nova Scotia—123. South-east coast, Chedabucto Bay, Guysborough harbor, hand foghorn at light station. 124. East coast, Scattarie Island, Main-a-Dieu, hand foghorn at light station. Prince Edward Island—125. East Point fog alarm, change in length of and interval between blasts.

No. 56. June 6.—Quebec—127. Strait of Belle Isle, western entrance, Greenly Island, new iron lantern, intended change in character of light.

No. 58. June 8.—Nova Scotia—131. South-east coast, Cranberry Island, change in fog alarm.

No. 59. June 8.—Ontario—132. River St. Lawrence, Dickinson Landing, change in color of light. 133. Lake Erie, Pelee Island, wreck to northward, light exhibited.

No. 60. June 9.—Nova Scotia.—134. Northumberland Strait, Pictou Island, change in character of light. Prince Edward Island—135. South coast, Sea Cow head, change in character of light. 136. South coast, Cape Egmont, change in character of light. 137. North coast, Cape Tryon, change in character of light.

No. 61. June 13.—Quebec—138. River St. Lawrence, ship channel between Quebec and Montreal, Champlain, rearrangement of range lights. 129. River St. Lawrence, ship channel between Quebec and Montreal, above Port St. Francis, channel widened, buoyage changed, change in position of front light.

No. 62. June 14.—Nova Scotia—140. South coast, Halifax harbor, Mauger beach, tower being increased in height, light obstructed temporarily. 141. South coast, Halifax harbor, sunken schooner Alexander R. raised, wreck buoy withdrawn.

No. 63. June 15.—New Brunswick—142. Gulf of St. Lawrence, Miramichi Bay, Horseshoe bar, lightship replaced and described. 143. Gulf of St. Lawrence, Miramichi Bay, Horseshoe bar, can buoys replaced by gas buoys. 144. Gulf of St. Lawrence, Miramichi bay, buoys discontinued.

No. 64. June 18.—British Columbia—145. Haro Strait, Discovery Island, intended change in character of light. 146. Baynes Sound, Denman Island, west side, lighthouse established. 147. Juan de Fuca Strait entrance, Swiftsure bank, whistling buoy established.

No. 65. June 18.—Quebec—148. Gulf of St. Lawrence, Fame Point, change in fog alarm.

No. 66. June 19.—Quebec—149. River St. Lawrence, ship channel between Quebec and Montreal, Nicolet traverse and curve west of Pointe du Lac, rearrangement of buoys.

No. 67. June 20.—Quebec—150. Gulf of St. Lawrence, north shore, Little Nabashquan harbor, lighthouse established.

No. 68. June 21.—Nova Scotia—151. Bay of Fundy, Basin of Minas, mouth of Avon River, Crossbars shoal, gas buoy established. 152. Avon River, Dimock Point, light established. 153. South coast, approach to Port Felix, Flying Point shoals, bell buoy established. Prince Edward Island—154. East coast, Cardigan Bay, Georgetown, light established on railway wharf.

No. 69. June 22.—Ontario—157. Lake Huron, False Detour channel, Kitchener Island, light established. 159. Lake Huron, north channel, Aird Bay, Cutler, change in illuminating apparatus of range lights.

No. 70. June 22.—New Brunswick—160. Bay of Fundy, St. John harbor, Partridge Island, can buoy established. 161. Northumberland Strait, Richibucto harbor entrance, south beach, change in position of bar range lights.

No. 71. June 23.—British Columbia—162. Queen Charlotte Sound, Egg Island light station, fog alarm established.

No. 72. June 27.—Newfoundland—163. South-west coast, Cape Ray, change in fog alarm.

No. 73. June 28.—Quebec—164. Gulf of St. Lawrence, Anticosti lightship replaced on her station. 165. River St. Lawrence, White Island reef lightship replaced on her station.

Ocean Marine Navigation Aids.

The Shipping Federation of Canada recently presented a memorial to the Dominion Government setting forth a list of improvements to lights, buoys and fog signals, which it considered should be provided in order to ensure the safe navigation of the waters navigated by the Canadian ocean marine. The various aids recommended, and the present position of the matters are as follows:

NORTHERN ROUTE.

Including the Island of Belle Isle, the part of Newfoundland adjacent to, and the Straits of Belle Isle up to and including the Island of Anticosti.

RECOMMENDATIONS PASSED.—Increase of illuminating power at Belle Isle high light, and alteration from a fixed to an occulting light, 5 secs. light and 5 secs dark. Increase of illuminating power at Belle Isle low light to show over an arc of 240°, and the light changed from fixed to occulting. More powerful light at Flower Island, and present revolving white 30 secs. light, changed to one giving two flashes every 10 secs. Change of light at Point Rich to a triple flashing light, giving two flashes every 20 secs. The erection of a beacon on the Newfoundland shore of the Straits of Belle Isle, about 18 miles west of Cap Norman.

SOUTHERN ROUTE.

Including the Newfoundland coast from Cape Race to Father Point.

RECOMMENDATIONS PASSED.—Increase of power at Cape Pine, and character changed to a flashing light. Increase of illuminating power at Port Basque, and light changed to a quick flashing white light. Increase of illuminating power at Cape Chatte, and character changed to quick flashing light. Character of the light at Father Point to be changed from a revolving white light 20 secs., to a quick flashing light, screened to clear Cock Point Shoal to the eastward, and the most powerful illuminant be provided.

RECOMMENDATION NOT PASSED.—Provision of fog signal at Pine Cape light.

MARITIME PROVINCES.

Including coasts of New Brunswick, Nova Scotia and Prince Edward Island.

RECOMMENDATIONS PASSED.—Alteration of light at Cape North to quick flashing light, and provision of a fog horn. Provision of whistling buoy or a lightship at a point about three miles n.e. of the south bar at Sydney harbor entrance. Increase of illuminating power of Low Point light, and adoption of a distinctive character for light.

TO STAND OVER FOR CONSIDERATION.—Provision of gas buoy with bell or whistle for Petrie's Ledge, Sydney harbor. Provision of gas buoy to mark Livingstone shoal, Sydney harbor. Provision of gas buoy at south bar, Sydney harbor. Provision of fog signal at Egg Island.

FATHER POINT TO QUEBEC.

RECOMMENDATIONS PASSED.—Establishment of lighthouse and fog signal at Cape Dogs. A lightship to be provided, if possible, on Morin shoal, near Murray Bay, but in the meantime a buoy with fog signal will be provided. Lights at Cap a L'Aigle, Murray Bay, and Goose Cape to be made distinctive in character. Change of position of Bellechasse light. Increase of power of light at west end of Orleans Island. Increase of power of leading lights at Quebec harbor.

LEFT OVER TO BE REPORTED ON, ETC.—Additional gas buoy on north end of Red Island Bank, to render the channel between Red Island and Princess shoal navigable. Provision of range lights, from head of Traverse to the Pillars past the Channel Patch; from the Pillars to Crane Island; Beaujeu Bank, and Crane Island to St. Laurent wharf d'Orleans. Provision of fog horn at lower pier in the Traverse. Increase of power at Crane Island light.

FATHER POINT TO QUEBEC.

RECOMMENDATIONS APPROVED.—Two distinctive buoys to be placed in St. Lawrence above Quebec, as a trial. Light to be placed on north pier of Quebec Bridge by company. Changes in range lights in channel between Nicolet and Champlain, (being done).

UNDER CONSIDERATION.—Placing of gas buoy to mark shoal opposite Cap Sante. Placing of buoys at anchorages at Isle Aux Raisen. Establishment of telephone stations for reporting vessels, etc., between Quebec and Montreal in connection with lighthouse services.

MONTREAL HARBOR.

The question of buoying the ledges, reefs and shallow water within the harbor, will be taken up with the Montreal Harbor Commission; as also will be the question of establishing entrance lights on the guard and Victoria piers, and a screened light on Isle Ronde. The question of raising the range lights at Hochelaga to a sufficient height to be visible as soon as a vessel gets within the line of range, and the increase of the illuminating power was referred to Mr. Boucher.

Beeson's Marine Directory for 1906.—The twentieth annual issue of this standard directory of the shipping on the Great Lakes has been issued by H. P. Beeson, Chicago, Ill. In addition to the lists of United States and Canadian steamers and sailing vessels, special lists are given of the ore carriers, lumber carriers; records of engines and boilers, together with a large amount of miscellaneous information of interest and value to all interested in marine matters, whether as owners, freighters or shipmasters.

International Mercantile Marine Co

The report for the year ended Dec. 30, 1905, shows gross receipts of $33,362,918, of which $32,465,512 represented earnings from voyages. These receipts, it is stated, do not include the operations of the Leyland Line and the National Line, in which the I.M.M. Co. has large holdings; such profits, however, as these companies made were written off for depreciation. After meeting the various expenses, including payments on account of trade agreements, a balance of $2,890,848 remained available for dividend. During the year the management sold $2,744,000 of the 4½% bonds held by the treasury at 88½, the proceeds being applied to the floating debt. The report says: "Further substantial payments on account of such floating debt were made from current earnings, so that the items

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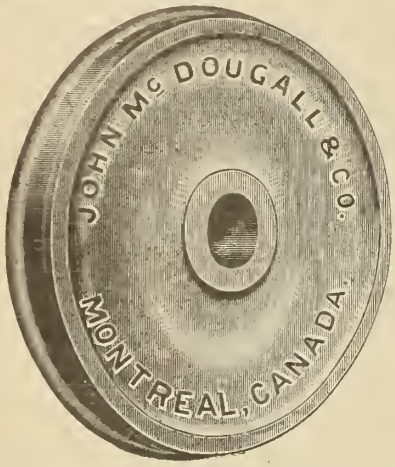

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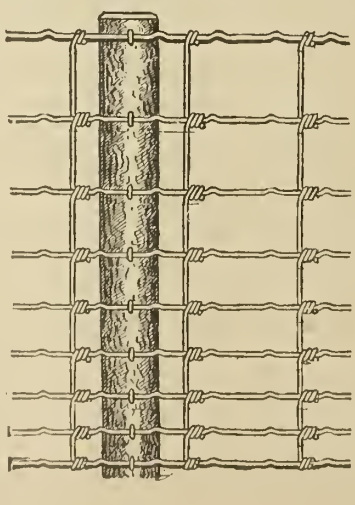

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of loans, bills payable and foreign bank overdrafts has been reduced from $10,311,190.40 to $6,326,989.36. At the same time current liabilities have been reduced from $5,554,-558.72 to $4,828,584.38. There has been a reduction also in the outstanding debenture bonds of the constituent companies of $326,-405.01. In addition to these material reductions in floating debt and current liabilities $2,000,000 has been transferred to the credit of the depreciation fund, making the total credit in the insurance and depreciation funds $3,138,766.23." No total loss was sustained during the year and the company's insurance fund shows a profit of $864,159. The outlook for 1906 is considered most encouraging, the earnings for the first five months indicating a large increase over any corresponding period of the company's history. The new White Star steamer Adriatic will be launched in August. The company has 126 steamers, representing a gross tonnage of 997,445, to which will be added this year the Adriatic, Servian and Scotian, of a total tonnage of 66,124, making a total gross tonnage of 1,063,269. The Dominion Line steamers are owned by the I.M.M.Co. No dividends have been paid on the preferred stock since Dec. 1, 1902, when the company was formed.

Canadian Purchasers of U S. Vessels.

During 1905 twenty steam and sailing vessels were purchased from United States owners by Canadian shipowners, and were placed on the Canadian register. In giving the list, Beeson's Marine Directory for 1906 says: "It would seem that Canadians are annually buying more of our older and smaller vessels. Our own protective tariff largely prohibits Americans from buying Canadian vessels to Americanize." Following is a list of the vessels referred to:—

Name.	Description.	Gross tons.	New Name in Canada.
Abercorn	screw str.	260	
Arabia	"	1,395	Bickerdike
Aunt Ruth	schooner	111	
Boscobel	tug	611	Ottawa
Cangarda	st. yacht	116	Magedoma
Charlie Marshall	schooner	221	
China	screw str.	1,544	City of Montreal
Frank D. Ewan	schooner	882	
Honest Boy	"	18	
Isaac Lincoln	screw str.	376	Ralph P. Holcomb
Jessie Bain	"	67	
J. M. Diver	tug	83	
John Magee	schooner	331	
Kate Darley	"	388	
Osceola	screw str.	980	Golpsic
Pete Gorman	tug	60	
Robt. A. Packer	screw str.	921	Batchawana
Siesta	st. yacht	102	
Vernon Jr.	"	33	
Zapotec	barge	811	

Among the Express Companies.

The Canadian Ex. Co. has re-opened its office at Memramcook, N.B.

The Dominion Ex. Co. has closed its offices at Annis, Downie, Griffin Lake, Maple Grove, B.C., and Creeford, Man.

The Dominion Parliament has passed an act bringing the express companies under the control of the Railway Commissioners.

J. Blackhall, secretary to the President of the Dominion Express Co., has been appointed acting route agent at Montreal during the absence in Great Britain of D. E. Whitney.

At the annual meeting of the Dominion Ex. Co., held recently at Montreal, the directors were re-elected. W. S. Stout was subsequently re-elected President, and C. F. Smith, Vice-President.

The Dominion Ex. Co. has supplied its messengers on the C.P.R. west of Winnipeg, since the recent hold-up in British Columbia, with revolvers for use in protecting the express matter in their charge.

The Minister of Railways has notified the members of the Association of Railway Telegraphers on the I.C.R., that the regulation to prevent them handling express matter will not be enforced for the present.

The Canadian Northern Express Co. has opened an office at West Selkirk, Man., and is operating an express service over the line of the Winnipeg, Selkirk and Lake Winnipeg Ry., between Winnipeg and West Selkirk.

The jury trying the case at St. John, N.B., in which H. B. White, formerly cashier Dominion Ex. Co. there, was charged with forging names to money orders, thereby defrauding the company, disagreed, and the case will be retried.

The ten-storey building which the G.T.R. has decided to erect on McGill St., Montreal, will be occupied, so far as the first three floors are concerned, by the Canadian Ex. Co., which now has its offices in the G.T.R. head office building on the opposite side of McGill Street.

The Dominion Ex. Co. has opened offices at Hillcrest, Parkland, Alta.; Cambie, Clayburn (formerly Maple Grove), Crescent Valley, Huhwah (formerly Downie), Kochs, Lancaster, Lebahdo, Miles Ferry, Perrys, Taghun, Tarry's, B.C.; Moore Park (formerly Creeford), Man.

Unappraised merchandise from Canada to a number of points in the interior of the U.S., may be sent by express without appraisal and payment of duty at the frontier ports of Calais and Vanceboro, Me.; St. Albans, Vt.; Niagara Falls, N.Y.; Detroit, Mich. Two extra express receipts, each marked "In Bond to ———," must be issued by the express agents, who have lists of the ports in the U.S. to which such goods may be sent.

The Manitoba Legislature, at its last session, passed an act respecting the taxation of companies in which it is provided that express companies doing business in the province will be taxed as follows: Every such company having 50 and not exceeding 100 branch offices, $500; every such company having over 100 branch offices, $1,000; provided that in no case shall the tax payable by any express company be less than $250.

The Dominion Ex. Co. announces that its agencies in Europe are:—European Agent, Archer Baker, 67-68 King William St., E.C., and 62 to 65 Charing Cross, S.W., London; sub-agencies—Liverpool, M. Beck & Co., 61 South John St.; Glasgow, 67 St. Vincent St.; Antwerp, H. Debenham, 33 Quai Jordaens. G. T. Wheatley & Co., London, Liverpool and Paris, and the Globe Parcel Express Co., with agencies throughout Great Britain, are specially authorized receiving agents of the Dominion Ex. Co.

Telegraph and Cable Matters.

The Marconi Wireless Telegraph Co. expects to have its trans-Atlantic stations completed so as to be open for commercial business by Sept. 1.

There are 233,823 miles of submarine cable laid in the oceans of the world, the latest to be laid is one connecting the Commercial Cable Co.'s Pacific cable with Japan.

Telegraph companies doing business in Manitoba will, under an act passed at the last session of the Legislature, have to pay a tax of 2% upon their gross earnings in the province.

One of the subjects considered at the colonial conference in London, Eng., in July, was the cable connection between Jamaica and the other West Indian islands. There is direct cable connection between Jamaica and England, and from Jamaica to the Barbados and Trinidad. The idea is to extend the present cable lines around the smaller islands and down to British Guiana.

An act incorporating the Grand Trunk Pacific Telegraph Co. was passed by the Dominion Parliament at its recent session. R. S. Logan, assistant to the Second Vice-President and General Manager, G.T.R., recently stated that while the G.T. Pacific Ry. Co. had a proposal to establish a telegraph company under consideration, nothing definite had been decided, beyond obtaining the act of incorporation.

At the 25th annual convention of the Association of Railway Telegraph Superintendents, held at Denver, Col., June 20, and following days, W. J. Camp, Electrical Engineer, C.P.R. Telegraphs, Montreal, said he was experimenting at present on the C.P.R. lines with the old style of American telephone and telegraph composite instruments and with telegraphone apparatus, and he would be glad later on to give the association the benefit of the results of his investigation. Mr. Camp also took part in the discussions on pole line construction, and overhead crossings, referring in connection with the latter to the work accomplished before the Railway Commissioners in connection with the crossings of railways by telephone, electric light and power circuits.

The Old B.C. Telegraph Trail.

The story of the project by the Western Union Telegraph Co. during the sixties, when it was thought that the successful laying of the Atlantic cable would never be realized, to build an overland telegraph line connecting this continent with Asia and Europe, crossing the intervening water by the way of Behring Strait, has been told in these columns. The old "telegraph trail" in British Columbia, along which this line was to proceed, traces of which still exist, and which at various points may be observed quite distinctly, followed up the course of the Fraser River as far as Quesnel.

On the line from Quesnel northward, things were left as they stood; the line, as far as constructed, was never used, and gradually fell; and to-day only occasional poles remain standing, while miles of wire have been trodden into the ground by pack animals, and can be seen sticking out of the mud at intervals, still perfectly sound and not at all rusted. The greater part of the wire has, however, been taken by the Indians for various uses. With it their houses are tied together; they made it into nails, fish spears, traps, etc., and even constructed most ingenious suspension bridges with it.

It is interesting to note that the present Dominion Government telegraph line to the Yukon follows the old line as far as the latter went, utilizing the old right-of-way cutting, but having, of course, to replace the poles and wire. The old telegraph trail has ever since been the main thoroughfare through this northern interior, and from it other trails branch off to various districts.

There can be little doubt that the explorations caused by this telegraph enterprise had an influence on the territory investigated, indirect perhaps, but none the less effective and lasting. For it is a noteworthy fact that the negotiations for the purchase of Alaska from Russia by the United States were begun in 1866, just about the time when the reports of these surveys would reach the United States, and that these negotiations emanated from Washington.—Telegraph Age.

The travelling, soliciting and contracting freight and passenger agents of the various railway offices in Chicago, met recently and organized the Chicago Transportation Association. The following temporary officers were elected to hold office until a meeting to be held early in Sept., when permanent organization will be effected and the Association incorporated: President, P. E. Francis, C.R.I. & P. Ry.; Vice-President, C. D. Turner, Erie Rd.; Secretary, C. R. Boak, Intercolonial Ry.; Treasurer, G. H. Brown, of Grand Trunk Ry.

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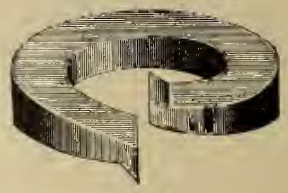

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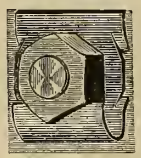

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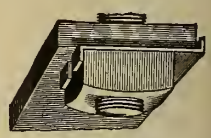

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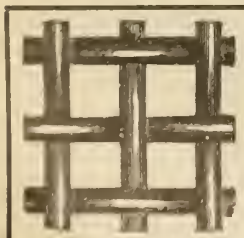

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Dominion Telegraph Company.

The following financial statement was presented at the annual meeting in Toronto, July 11:

ASSETS.

Capital expenditure	$1,281,819.47
Toronto, Grey & Bruce Ry. Co. 1983 bonds, and interest thereon	1,596.24
Cash in bank and on hand	28,187.33
	$1,311,603.04

LIABILITIES.

Capital stock paid up	$1,000,000.00
Dividends unclaimed	1,360.50
Dividend 116, payable July 15, 1906.	14,000.00
Suspense	522.13
	$1,015,882.63
Balance at credit of profit and loss..	295,720.41
	$1,311,603.04

The Directors reported the regular payment, quarterly in advance, for the past 27 years, of the guaranteed interest of 6% per annum on the capital stock of the company, by its lessees, the Western Union Telegraph Co., up to and including June 30, 1906, which interest has been distributed quarterly to the shareholders of the Dominion Co.; the lease being for 99 years, from July 1, 1879 The directors and officers elected for the current year are: President, T. Swinyard; Vice-President, Sir Henry M. Pellatt; other directors, Belvidere Brooks, T. F. Clark, Col. R. C. Clowry, Æ. Jarvis, C. O'Reilly, M.D., H. Pellatt and A. G. Ramsay; Secretary-Treasurer, F. Roper.

General Telephone Matters.

The work of installing a second telephone system in Brantford, Ont., is being proceeded with.

The Bell Telephone Co. has extended its long distance lines from St. Ours to St. Roche de Richelieu, Que.

A rural telephone system is being constructed at Glenboro, Man., for the purpose of connecting up about 70 farms with the town.

The Manitoba Legislature, at its last session, provided for the imposition of a tax not exceeding 2% upon the gross earnings of telephone companies in the province.

The Bell Telephone Co. has been granted a franchise of five years at $5,000 a year, with privilege of cancellation at the end of two years, by the Ottawa City Council.

The Bell Telephone Co. is constructing a long distance telephone line between Leavings, Macleod and Lethbridge, Alta., to connect with its existing lines in the province.

The British Columbia Telephone Co. has completed the laying of a telephone cable across the Fraser River, in connection with the improvement of the Chilliwack, Blaine and Ladner service.

The Bell Telephone Co. has opened a public call office at Clarksons, Ont., from which connection can be had with Bronte, Burlington, Hamilton, Oakville, Port Credit, Sheridan and Toronto.

The C.P.R. is completing the stringing of a copper wire between Montreal and Winnipeg for the operation of a telegraphone system, by which the line can be utilized at the same time for the transmission of telephone and telegraph messages.

The Independent Telephone Co. has extended its lines into Unionville, Ont., and is giving a service at $12 a year. The Bell Telephone Co. is also giving a service in the neighborhood at $20 a year with service over its Markham and Scarboro lines.

The Toronto City Council has given a permit to the Bell Telephone Co. to erect an exchange at the corner of Bellevue Ave and Oxford St. The new exchange will be known as College, and will be three storey high. It will be built of brick and concrete and will cost about $40,000.

The Bell Telephone Co.'s long distance line between Winnipeg, Man., and Regina, Sask., is expected to be completed by Sept. 1. The company is placing most of its wires in Regina underground, and removing its poles from the streets. It also proposes to erect an exchange in Regina.

The Dominion Parliament at its recent session passed an act providing for bringing telephone companies under the control of the Board of Railway Commissioners; and giving the Commissioners power to regulate tolls, make orders for securing connections between local companies, etc.

The Haldimand Rural Telephone Co. has been incorporated under the Ontario Companies' Act with a capital of $3,000 and offices at The Gully, Ont., for the purpose of carrying on a general telephone business in the county of Northumberland. The provisional directors are: T. Hosken, J. Ross, J. D. Craig, A. and T. Spear.

The Calgary, Alta., City Council has instructed a committee to secure estimates as to the necessary cost of installing and operating a municipal telephone system, and to confer with representatives of the Provincial Government with regard to mutual co-operation and affiliation with the proposed provincial system. The committee was instructed to present a report at the earliest possible date.

The Bell Telephone Co. expects to complete the stringing of its long distance lines from Moose Jaw, Alta., to Winnipeg, Man., shortly. The distance is about 400 miles, and there are no difficulties in the way such as affect long distance lines in Ontario and Quebec, where there are trolley systems and electrical power wires to interfere with the transmission of the sound waves.

The Nova Scotia Telephone Company.

The following report for the year ended Jan. 31, was presented at the annual meeting, June 14: 498 subscribers were added during the year, the total number of sets of instruments in use on Jan. 31 being 4,009. 1,426 feet of underground conduit was laid in Halifax during the year, comprising 9,530 feet of duct; and 13,973 feet of cable, containing 856 miles of conductor, was pulled in. A building was erected in a commanding location at Truro, and a great deal of the wire

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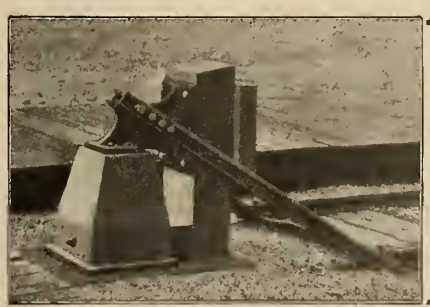

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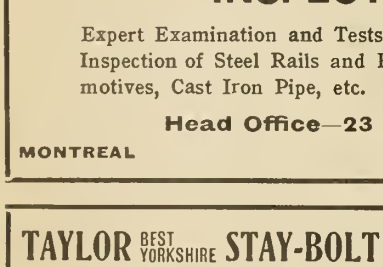

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plant has been rebuilt and metallic circuits installed, preparatory to the installation of a new switchboard. In the various exchanges, the company has some 216 miles of poles, 4,337 miles of wire on poles, and 3,246 miles of wire underground. The plant and goodwill of the Parrsboro Shore Telephone Co. has been purchased, giving this company connection with practically every point in Cumberland County. The long distance facilities have been increased by the addition of 42 miles of poles, and 588 miles of wire, making a total of 762 miles of poles, and 3,308 miles of wire. In addition to this 70 miles of old line have been rebuilt. The 12,500 shares of new stock, offered to the shareholders at 15% premium, have nearly all been subscribed. A call of 50% was made in Nov. last, and the final call will be payable on Aug. 1. The business is in a most satisfactory condition, showing a steady growth from year to year.

ASSETS

Exchanges and plant	$524,568.44
Stores	21,952.68
Stock in other companies, etc	132,975.50
Real estate, buildings, etc	52,705.33
Accounts receivable	15,317.39
Due by agencies, including Halifax	12,264.10
Cash on hand and in bank	15,910.99
	$775,694.43

LIABILITIES

Capital stock	$572,480.00
Accounts payable	4,421.36
Dividend payable Feb. 1, 1906	8,587.20
Unearned rental reserve	20,000.00
Insurance reserve	20,000.00
Accident reserve	10,000.00
Storm insurance reserve	8,000.00
Contingent and depreciation	121,907.57
Profit and loss	10,298.30
	$775,694.43

PROFIT AND LOSS ACCOUNT

Balance brought forward		$10,428.30
Net earnings		45,211.86
Premium on stock		13,977.00
		$69,617.16
Dividend paid May 1, 1905	$6,984.58	
Dividend paid Aug. 1, 1905	7,343.95	
Dividend paid Nov. 1, 1905	7,475.35	
Dividend payable Feb. 1, 1906	8,587.20	
	$30,391.08	
Insurance reserve	5,000.00	
Storm insurance reserve	8,000.00	
Written off real estate	2,000.00	
Contingent and depreciation	13,927.78	
		$59,318.86
		$10,298.30

The directors for the current year are as follows: President, Dr. C. F. Fraser; Vice-President, J. Y. Paysant; other directors: H. C. Borden, J. C. Mackintosh, B. F. Pearson, W. Robertson, C. F. Sise.

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Canadian Ry. Accident Ins. Co. .....Ottawa, Ont.

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E. L. Drewry .....Winnipeg.

Air Brakes and Fittings
Canada Foundry Co. .....Toronto.
Canadian Westinghouse Co. .....Hamilton, Ont.

Air Compressors
N. J. Holden Co. .....Montreal.

Ales
E. L. Drewry .....Winnipeg.

Axes
James Smart Mfg. Co .....Brockville, Ont.

Axe Steel
Montreal Steel Works .....Montreal.

Axles
James Hutton & Co. .....Montreal.
B. M. Jones & Co., Inc. .....Boston and New York.
Jas. W. Pyke & Co. .....Montreal.
Rhodes, Curry & Co. .....Amherst, N.S.

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Chicago Railway Equipment Co. ....Chicago, Ill.

Belting, Rubber
The Canadian Rubber Co. of Montreal.

Blankets and Bedding
The Hudson's Bay Co. .....

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General Railway Signal Co .....Buffalo, N.Y.

Boiler Compound
N. J. Holden Co. .....Montreal.

Boiler Covering
Mica Boiler Covering Co. .....Montreal.

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Canada Foundry Co. .....Toronto.
Hall Engineering Works. .....Montreal.
Polson Iron Works .....Toronto.
Robb Engineering Co. .....Amherst N.S.

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Robb Engineering Co. .....Amherst, N.S.

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Canada Foundry Co. .....Toronto.
H. W. Petrie .....Toronto.
Robb Engineering Co. .....Amherst, N.S.

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Babcock & Wilcox (Ltd.) .....Montreal.
Canada Foundry Co. .....Toronto.
H. W. Petrie .....Toronto
Robb Engineering Co. .....Amherst, N.S

Boilers, Steam
Babcock & Wilcox (Ltd.) .....Montreal.
H. W. Petrie .....Toronto
Robb Engineering Co. .....Amherst, N.S.

Boilers, Water Tube
Babcock & Wilcox (Ltd.) .....Montreal.
Robb Engineering Co. .....Amherst, N.S.

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Simplex Railway Appliance Co. .....Montreal.

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Toronto Bolt and Forging Co. .....Toronto.

Bolts, Carriage and Machine
Toronto Bolt and Forging Co .....Toronto.

Bolts, Track
Canada Foundry Co. .....Toronto.
Toronto Bolt and Forging Co. .....Toronto.

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W. H. C. Mussen & Co. .....Montreal.

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Simplex Railway Appliance Co. .....Montreal.

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Canadian Iron and Foundry Co. .....Montreal.
N. J. Holden Co. .....Montreal.

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W. H. C. Mussen & Co. .....Montreal.

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Canadian Iron and Foundry Co. .....Montreal.
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St. Thomas Brass Co. .....St. Thomas, Ont.

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Kerr Engine Co. .....Walkerville Ont.

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Montreal Steel Works. .....Montreal.
Rhodes, Curry & Co. .....Amherst, N.S.

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Office Signs
Acton Burrows Limited. ..... Toronto.

Oils
Canadian Oil Co. ..... Toronto.
Galena Signal Oil Co., Franklin, Pa., and Toronto.

Packing
The N. L. Piper Railway Supply Co. ..... Toronto

Packing, High Pressure Sheet
The Canadian Rubber Co. of Montreal.

Packing, Piston
The Canadian Rubber Co. of Montreal.

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Canadian Oil Co. ..... Toronto.

Paints, Damp Resisting
E. F. Dartnell. ..... Montreal.

Passenger Cars
American Palace Car Co. . New York and Toronto.

Pinch Bars
The N. L. Piper Railway Supply Co. ..... Toronto.

Pipe and Pipe Coverings
Wm. C. Baker Heating & Supply Co. . . New York.

Pipe Covering
Canadian Fairbanks Co. ..... Montreal.
Mica Boiler Covering Co. ..... Montreal.

Pipe Stocks
Butterfield & Co. ..... Rock Island, Que.

Piston Rods
B. M. Jones & Co., Inc. ... Boston and New York

Planers
H. W. Petrie. ..... Toronto

Ploughs, Contractors'
W. H. C. Mussen & Co. ..... Montreal
Toronto Pressed Steel Co. ..... Toronto

Pneumatic Tools
N. J. Holden Co. ..... Montreal.

Porter
E. L. Drewry ..... Winnipeg.

Portable Boilers
Babcock & Wilcox (Ltd.). ..... Montreal.
Canada Foundry Co. ..... Toronto.
Robb Engineering Co. ..... Amherst, N.S.

Power Houses
Steel Concrete Co, (Ltd.). ..... Montreal.

Printing
The Hunter, Rose Co. ..... Toronto.
The Mail Job Printing Company. ..... Toronto.

Propeller Wheels
W. Kennedy & Sons (Ltd.). .... Owen Sound, Ont.
Sheriffs Manufacturing Co. ..... Milwaukee, Wis.

Pumps
Canadian Fairbanks Co. ..... Montreal.
Canada Foundry Co. ..... Toronto.
Goold, Shapley & Muir Co. ..... Brantford, Ont.
James Smart Mfg. Co. ..... Brockville, Ont.

Pumps (Centrifugal)
M. Beatty & Sons. ..... Welland, Ont.

Rail Benders, Roller
F. H. Hopkins & Co. ..... Montreal.
Montreal Steel Works. ..... Montreal.

Rails (new)
Dominion Iron & Steel Co. ..... Sydney, N.S.
Drummond, McCall & Co. ..... Montreal.
F. H. Hopkins & Co. ..... Montreal.
J. J. Gartshore. ..... Toronto.

Rails (for relaying)
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J. J. Gartshore. ..... Toronto.
T. A. Morrison & Co. ..... Montreal.
W. H. C. Mussen & Co. ..... Montreal.
Jas. W. Pyke & Co. ..... Montreal.

Railway Interlocking
General Railway Signal Co ..... Buffalo, N.Y.

Rail Joints
Continuous Rail Joint Co. of Canada. ... Montreal.
N. J. Holden Co. ..... Montreal.

Railway Pile Drivers
F. H. Hopkins & Co ..... Montreal.
W. H. C. Mussen & Co. ..... Montreal.

Railway Signalling
General Railway Signal Co. ..... Buffalo, N.Y.

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F. H. Hopkins & Co. ..... Montreal.

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Canadian Fairbanks Co. ..... Montreal.
The W. H. Kelson Co. ..... Montreal.
The Hiram L. Piper Co. ..... Montreal.
The N. L. Piper Railway Supply Co. ..... Toronto.

Reamers
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Butterfield & Co. ..... Rock Island, Que.

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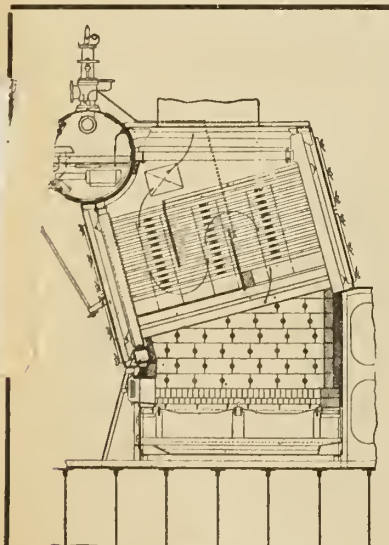

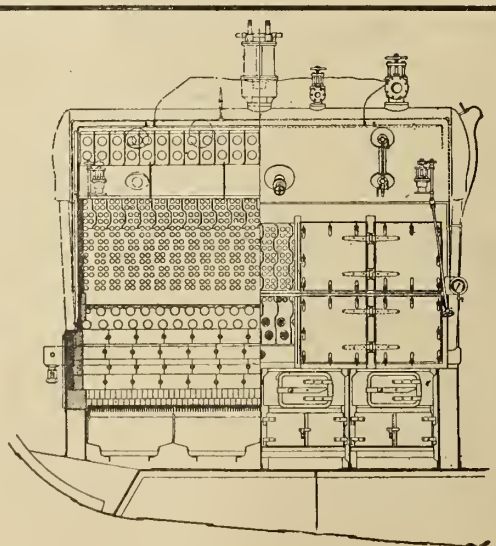

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See Alphabetical Index to Advertisements on page 535.

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TORONTO, CANADA, SEPT., 1906.

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Interchange of Traffic Decision

Chief Railway Commissioner Killam has given the following judgment on the application of P. C. Patriarche and the Burlington Canning Co.: This is an application to compel an interchange of traffic between the G.T.R. Co. and the Hamilton Radial Electric St. Ry. Co. By the Railway Act, 1903, sec. 253, "All companies shall, according to their respective powers, afford to all persons and companies all reasonable and proper facilities for the receiving, forwarding and delivering of traffic upon and from their several railways, for the interchange of traffic between their respective railways, and for the return of rolling stock; . . . . . and every company which has or works a railway forming part of a continuous line of railway with, or which intersects any other railway, or which has any terminus, station or wharf near to any terminus, station, wharf of any other railway, shall afford all due and reasonable facilities for delivering to such other railway, or for receiving from and forwarding by its railway all the traffic arriving by such other railway without any unreasonable delay and without any such preference or advantage, or prejudice or disadvantage, as aforesaid, and so that no obstruction is offered to the public desirous of using such railways as a continuous line of communication, and so that all reasonable accommodation, by means of the railways of the several companies, is, at all times, afforded to the public in that behalf."

By sec. 271, "The facilities to be afforded as required by sec. 253 shall include the due and reasonable receiving, forwarding and delivering by the company, at the request of any other company, of through traffic, and in the case of goods shipped by carload of the car with the goods shipped therein, to and from the railway of such other company, at a through rate, and also the due and reasonable receiving, forwarding and delivering by the company, at the request of any person interested in through traffic, of such traffic, at through rates."

By sec. 2, sub-sec. c., "The expression ...pany' means a railway company, and ...udes any person having authority to ...struct or operate a railway."

By. sec 3, this Act was to apply to all per..., companies and railways (other than ...vernment railways) within the legislative ...hority of the Parliament of Canada.

...y the British North America Act, 1867, ... 92, Provincial Legislatures were author...d to make laws upon the subject of: 10. Local works and undertakings other ...an such as are of the following classes: ...) Lines of steam or other ships, railways, ...nals, telegraphs, and other works and undertakings connecting the Province with any other or others of the Provinces, or extending beyond the limits of the Province, (c) Such works as, although wholly situate within the Province, are before or after their execution declared by the Parliament of Canada to be for the general advantage of Canada, or for the advantage of two or more of the Provinces." By sec. 91, the Parliament of Canada was authorized to make laws respecting "(29). Such classes of subjects as are expressly excepted in the enumeration of the classes of subjects by this act assigned exclusively to the Legislatures of the Provinces."

F. P. GUTELIUS,
Assistant Chief Engineer, Canadian Pacific Railway.

The Hamilton Radial Electric St. Ry. Co. was incorporated in 1893, by act of the Legislature of the Province of Ontario, 56 V., c. 89, for the purpose of constructing and operating a line of railway situate wholly in the Province of Ontario. The undertaking and railway of that company have never been specifically declared by the Parliament of Canada to be a work for the general advantage of Canada, or for the advantage of two or more of the Provinces.

By the Railway Act of 1888, sec. 306: "The Intercolonial Ry., the G.T.R., the North Shore Ry., the Northern Ry., the Hamilton and North-Western Ry., the Canada Southern Ry., the Great Western Ry., the Credit Valley Ry., the Ontario and Quebec Ry., and the C.P.R., are hereby declared to be works for the general advantage of Canada, and each and every branch line or railway now or hereafter connecting with or crossing the said lines of railway, or any of them, is a work for the general advantage of Canada." By section 307, "Every such railway and branch line shall hereafter be subject to the legislative authority of the Parliament of Canada."

That Act was repealed by the coming into force of the Railway Act, 1903. By sec. 7 of the latter act, "Every railway, steam or electric street railway or tramway, the construction or operation of which is authorized by a special act passed by the Legislature of any Province, now or hereafter connecting with or crossing a railway which, at the time of such connection or crossing, is subject to the legislative authority of the Parliament of Canada, is hereby declared to be a work for the general advantage of Canada in respect only to such connection or crossing or to through traffic thereon or anything appertaining thereto, and also to the provisions set forth in this act relating to offences and penalties, navigable waters and criminal matters, and this act shall apply to that extent only."

Some years before the coming into force of the Railway Act, 1903, a physical connection was made between the line of the Hamilton Radial Electric St. Ry. Co. and that of the G.T.R. Co. in or near the village of Burlington; from time to time, since that connection was made, freight cars have been transferred from the one line to the other thereby. So far as the record show, this connection was never authorized by the Railway Committee of the Privy Council; it has never been authorized by order of this Board.

On March 3, 1897, the Railway Committee of the Privy Council gave leave to the Hamilton Radial Electric Ry. Co. to cross the G.T.R. track, and the latter's Burlington station, and such crossing was afterwards constructed, as appears by the report of the Chief Engineer of the Department of Railways, dated Jan. 5.

In considering whether the Hamilton Radial Electric St. Ry. is subject to the legislative authority of the Parliament of Canada, several questions of considerable difficulty, naturally, suggest themselves: (1) Was section 306 of the Act ... applicable? (2) If so, was it intra vires the Parliament of Canada by such ... declaration to acquire legislative

(Continued on page 505.)

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Is pure water white in color; high fire test; low cold test, and splendid gravity.

Please write to home office for further particulars.

CHARLES MILLER,

PRESIDENT.

e of Traffic Decision.

(inued from page 501.)

under sec. 91, sub-sec. 29, and
c. 10 (c), of the British North
1867? (3) Can Parliament,
declared a work to be for the
ntage of Canada, deprive itself of
uthority over such work? (4)
done by repeal of the Act con-
declaration? (5) Can Parlia-
ration limited in the manner
ne present Act, acquire legis-
over a work otherwise within
uthority of a Provincial Legis-
) Does section 7 of the present
the last preceding question,
ilton Radial Electric St. Ry.
islative authority of Parlia-
pect of the matters in question?

the present, I shall confine myself to
nsideration of the 6th question only.
together secs. 3 and 7 of the present
appears to me that there is a sufficient
on of the intention of Parliament to
nd bind by the legislation contained
t Act upon the special subjects specified
c. 7, railways connecting with or crossing
s within the legislative authority of
ent, and the companies owning or
g the same. Parliament has un-
authority in legislating upon the
of railways to the extent provided for
British North America Act, 1867, to
and affect persons and companies, and
property, not otherwise generally sub-
to its legislative jurisdiction. Thus,
rt altogether from the question of acquir-
legislative jurisdiction over a work by
aring it to be for the general advantage of
ada in certain respects only, Parliament
h my opinion, the incidental power to
mine the terms upon which a railway,
otherwise subject to the legislative
nority of Parliament, may connect with
cross one that is so subject, and the obliga-
ns that shall result from the relations thus
ablished between those works and the
rpanies owning or operating them re-
ctively. In this view, it appears to me
t the above-mentioned provisions of sec.
3 and 271 are binding upon the Hamilton
dial Electric St. Ry. Co., and upon the
T.R. Co. with reference to the Hamilton
mpany and its railway. But sec. 173 of
Act of 1888 forbade companies to unite
ailways with other railways without
proval of the Railway Committee of
ivy Council. Sec. 177 of the present
rbids such connection without the leave
Board. The fact that the connection
xisted and has been used for some
does not make it legal. There is
ng to show that either company is un-
g to interchange traffic with the other
as it can be done between roads that
y cross each other without such connec-
n as enables cars to be transferred from
e to the other. The present application
really for the purpose of compelling the
T.R. Co. to transfer cars from its tracks to
ose of the Hamilton company. For the
esent and until a junction shall be legally
tablished, in my opinion, no such order
ould be made. The Board is not in a posi-
ion, upon this application, to authorize or
validate the connection; that must be done,
f at all, upon application by one of the com-
panies in accordance with the provisions of
ec. 177 of the present Railway Act.

The Quebec Mountain Hill Elevator Co. has
een incorporated under the Quebec Com-
anies' Act, with a capital of $60,000 and
ffices at Quebec, for the purpose of construct-
d passenger elevator at Quebec
Direc ors: Caron,
Olivett,

Ontario Railway and Municipal Board.

By Prof. S. J. McLean, University of Toronto.

The general railway laws which have been passed by the various provinces follow, in the main, the general railway law of the Dominion. Ontario is the first of the provinces to follow the example of the Dominion in providing for a railway commission. The legislation which effected this is to be found in two laws enacted in May last. The provisions of the legislation resemble in some respects the provisions of the Massachusetts legislation in that they have control over street railways. The Ontario Railway Act of 1906 is a codification of the hitherto existing Ontario legislation in regard to steam, electric and street railways. In the codification there are also included various provisions from private railway acts passed by the province; the regulative provisions of the Dominion legislation are, in the main, adopted; and there is also to be seen the influence of the legislation of Massachusetts and of New York. Especial attention is devoted to street railways. A street railway is defined as a railway whose tracks are almost wholly within the limits of a city or town, not being continued for more than a mile and a half outside the boundaries of such municipal organization. All other lines are placed under the common heading of railways. The legislation applies to every railway of every sort under provincial jurisdiction, not only to those at present in existence, but also to those later to be constructed. Provision is made for the ordering of stops at any place on any sort of railway. So far as street railways are concerned, this provision is attributable to a dispute over a matter of this kind which recently arose between the Toronto Street Railway and the city of Toronto. The giving up of any stopping-place, or the closing of any station is subject to the consent of the railway board. The board is empowered, on the complaint of ten persons affected by the lack of accommodation in a station, or by failure to keep it in proper repair, to make an investigation and order what shall be done to rectify the grievance. After January 1, 1907, passengers standing on the side steps of a car, while in motion, are to be punishable by fine. The cars are to be so constructed as to prevent, if possible, passengers standing on the side steps. The board is empowered to conduct inspections of railways. It may also make orders in regard to the use of safety appliances.

The construction of urban and interurban electric railways is very active in Ontario and, on this account, the regulative provisions of the legislation, while applying to railways generally, are especially interesting in the case of railways using electricity as a motive force. Street railway franchises are limited to 25 years. The legislation does not, however, affect franchises already granted. In the case of radial, or interurban lines, when an agreement as to the terms on which such a line is to enter a municipality cannot be arrived at, the matter is to be submitted to the board for adjudication. This is, however, subject to the limitation that existing agreements between the street railway operating within its limits shall not be varied without the consent of the municipality. Otherwise a street railway by acquiring a radial line might obtain modifications of the original franchise granted by the city. A very radical change is made by the provision that, where a dispute arises between a municipality and a railway in regard to the construction and enforcement of agreements which such a municipality may have made with a railway or a street railway operating on highways, the board may, in default of a satisfactory observance of the agreement, take com te control of the line until the observed

This is intended to be a club to be used o in the last resort. No contracting-out liability for death or injury is permitted, agreements to permit such contracting are void. No operative on a railway 30 miles in length, who has been on duty 24 hours or over, is to be sent out again u he has had 12 hours' rest.

Certain more general powers are giv regard to municipal affairs, public ut companies, and labor disputes. The b is to hear various appeals in regard to ass ments which now go before the courts; an is to exercise the powers which have hith been exercised by the cabinet under the m cipal act. These powers cover quest concerned with the alteration of munic boundaries, confirmation of financial by-l and by-laws concerning highways, bri and public utilities. Telegraph, teleph electric light, heat and power companies be ordered to adopt such safeguards as board thinks necessary in the public inte The board is given power to arbitrate disp arising between a railway or street rail and its employes. The matter is to be bro before the board by the application of parties to the dispute, and the applica must contain an agreement to accept finding of the board in the matter, and to tinue at work without a lockout or s during the investigation. It does not ap whether the law contemplates action w application is made only by one of the pa The order of the board is to have no con ling power, the agreement to accept its ings being only an agreement in ho Where there is a strike or lockout of the ployes of any railway or public utility pany, or where there is a danger of t being such a strike or lockout, the board is empowered to attempt to obtain a settlement. If it is unable to obtain results through conciliation it is to appeal to public opinion by publishing its findings and making such recommendations as it deems fit. It is apparent that where the parties to the dispute are unwilling to avail themselves of the board's good offices the findings will depend on a partial statement of facts. It may be noted, in passing, that a suggestion, that somewhat similar powers should be conferred upon the Dominion Railway Commission, was contained in one of the reports preliminary to the organization of that commission. In general the board is, through its reports, annual and occasional, to act in an advisory capacity to the legislature in regard to railway and to municipal legislation.

In the organization of the Dominion Railway Commission control over the commission's actions was retained to parliament by authorizing an appeal from the commission to the cabinet; and at the same time authorizing the cabinet to overrule, of its own action, an order of the commission. The reason for this arrangement is that the regulation of railways by the Dominion has always been looked upon as a legislative matter. By placing a supervisory control in the hands of the cabinet, which is itself responsible to parliament, it was intended to preserve the principle of ministerial responsibility. In the Ontario legislation, however, a constitutional departure is made by permitting no such appeal to the Ontario cabinet. The findings of the Ontario commission, like those of the Dominion commission, are final on questions of fact. On questions of law and of jurisdiction there may be an appeal to the court of appeals. There is, however, a considerable expansion of the right of appeal in the provision that when the matter involved amounts to more than $4,000, or where there is a question of the duration of a franchise or of the construction of an agreement between a railway and a municipality, or any deman affecting the present or future rights of t public there may be an appeal to the priv council in England

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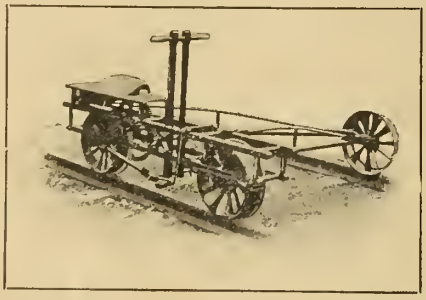

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The commissioners appointed hold office during the pleasure of the Government, and must give their entire time to the performance of their duties. They are not permitted, either directly or indirectly, to have any financial interest in the railways subject to their jurisdiction. Nor are they permitted to act as officers or as directors of any company which has power to invest in the securities of such railways. The scale of salaries is not high—$6,000 for the chairman of the commission, $4,000 each for the other two commissioners, and $2,000 for the secretary. Following the defective provisions of the Dominion legislation, and for that matter, of nearly all commission legislation, there is no provision in the Ontario legislation for qualifications of technical fitness to be possessed by the commissioners. The chairman of the commission has been active in law and in municipal affairs; of the other two commissioners one has occupied minor positions in the railway service, and has been a railway contractor. Until recently he has been a member of the Dominion Parliament. The third member of the commission is a wholesale grocer.

It will be noted that especial attention is devoted to the regulation of street railways. While attention has been paid to the Massachusetts legislation it has not been followed in the matter of regulation of capitalization. Any increase in the capital stock of a company must receive the approval of the board. But the board has no supervisory power over the way in which the sums so raised are to be expended. Nor has it any control over bonded indebtedness.

In the control of rates the legislation does not go so far as the Dominion legislation. The passenger fares on electric railways, including street railways under this heading, are controlled by maximum rates. The fares are not to exceed 5c. per passenger per mile for any distance not exceeding three miles; when the distance is in excess of this the maximum rate is to be 2c. a mile. In the case of railways, i.e., other than electric railways, by-laws containing the rates intended to be charged are to be drawn up by the railways. These are subject to the approval of the board. The board has power to approve these by-laws, in whole or in part, and has also power to modify them. The rates so dealt with are maximum rates. The board, however, is not given power to modify the rates once they are operative, nor is it given any power to make amendatory rates for the future. The control over rates exercised by the board includes also a similar supervisory power over sleeping car charges.

Some interesting constitutional questions will develop in connection with the delimitation of provincial powers in regard to railways. The legislation limits the jurisdiction of the board to railways within the provincial jurisdiction, exempting government railways. This follows the Dominion legislation. In Ontario the only line thus exempted is the Temiskaming and Northern Ontario Railway, running northward from North Bay towards James Bay, traversing on its way the cobalt silver deposits of northern Ontario. The question has yet to be faced, what lines are really within the provincial jurisdiction? While there is not the sharp distinction, in Canada, between intra-provincial and inter-provincial traffic which exists between intra-state and inter-state traffic in the United States, and which has so complicated the question of regulation in the latter country, at the same time it was in general intended that intra-provincial lines should be within the control of the provinces. This has, however, been subject to the provision that lines declared to be for "the general advantage of Canada" were, even if they lay wholly within the boundaries of a province, to be placed under the control of the Dominion Parliament. At first this was construed strictly to mean that a railway which was to form part of an inter-provincial railway was the type aimed at. Later a greater elasticity of interpretation developed, and in many cases lines lying wholly within provincial boundaries received Dominion charters without much attention being paid to the matter. Roads have been desirous of obtaining Dominion charters for various reasons. It has been felt in some cases that the possession of a Dominion charter would facilitate the obtaining of a subsidy from the Dominion. In some cases it has been thought that wide powers might more readily be obtained from the Dominion, while in other cases it has been felt that the possession of such a charter would give the railway a better status when endeavoring to place its securities.

The adoption by the Dominion, in the early eighties, of a policy whereby subsidies were granted to railways which were distinctly of local interest, still further aided in the gravitation of increased power, over railways, towards the central government. Protests against this tendency were made at an early date. In 1884 the province of Ontario memorialized the Dominion, stating that roads within the province had been subsidized by the province and the municipalities to the extent of $14,000,000; that this aid had been granted on the faith and understanding that the roads were to be under provincial control; and that since the Dominion Government had by the implications of its legislation declared they were for the general benefit, the moneys already expended upon them by the province and the municipalities should be refunded. In 1887 a similar protest was made by Nova Scotia. From time to time the Dominion Government has, in a somewhat haphazard manner, recouped provinces for expenditures on railways which have been subsidized by provinces and later brought under Dominion control. The largest payments of this nature have been made to Nova Scotia and to Quebec. In Ontario one small reimbursement has been made to a municipality.

Of recent years there has been more active protest against the encroachments of the Dominion Parliament upon the field of provincial activity. This has been especially noticeable since the construction of interurban electric railways began. An electric railway of local interest might apply to the Dominion for a charter. Its charter provisions might enable it to acquire other electric railways. If, under this arrangement, a consolidation of the railway were affected with a street railway, then the result would be that the street railway lying wholly within the boundaries of a city might become subject to the jurisdiction of the Dominion. Protests have been lodged against such legislation on the grounds that it is an infringement of local home rule, and that a local body, being closer to the facts, is better able to safeguard local interest. While the protests have not been limited to Ontario alone, it is Ontario that has been most active in protest. While the new Ontario legislation was pending a charter was granted to the Hamilton, Waterloo and Guelph Ry. an electric road lying wholly within the province of Ontario. A protest was lodged by the province of Ontario, saying that this infringed upon the jurisdiction of the province. Recently an application was made to the Dominion Parliament to keep in existence the charter rights of the Pacific and Atlantic Ry. This enterprise, which proposes to construct a railway from Glengarry to Sault Ste. Marie, was chartered 20 years ago by the Ontario legislature. The province of Ontario lodged a protest saying that this railway should be under provincial jurisdiction. The situation is complicated by the fact that the province of Ontario is urging that Dominion assistance should be given to the Temiskaming and Northern Ontario Ry. It is true that it is urged that this railway, which lies wholly within the province, is of interest to the Dominion in that when it is built northward to a junction with the Grand Trunk P it will facilitate the movement of supplies for the construction of that railway. That the Temiskaming railway is a government venture will suggest how complex the situation is. Now that there is a railway commission in Ontario, the question of delimitation of the powers of the province and of the Dominion will be kept to the front. It is probable that there will be a conference between the provinces and the Dominion to deal with the whole matter. Mr. Emmerson, the Dominion Minister of Railways and Canals, has expressed the opinion that through the instrumentality of such a conference, an amendment to settle the whole question may be drafted and incorporated in the British North America Act

Ontario Ry. and Municipal Board

The Board has drawn up a set of rules regulating its practice and procedure. These are based upon the rules and regulations adopted by the Board of Railway Commissioners for Canada, and provide that applications may be made directly or through a solicitor, and shall set forth in paragraphs the nature of the application, and the relief or remedy sought and shall be addressed to or filed with the Secretary of the Board at Toronto, and served upon the respondent. A reply shall be filed with the Secretary and served upon the applicant, if directed a hearing may be arranged for 10 days after the service of notice, 20 days' notice of the day fixed for the hearing being served upon the respondent by the applicant. The Board may direct that application be heard upon affidavits. Two days before the hearing the applicant shall deliver to the Secretary three copies of the application and reply (if any) and certify as to the Copies of affidavits should be filed with the Secretary and served on the opposite party within eight days thereafter, and any affidavit in reply shall be filed and served by the applicant upon the respondent within four days. The Board may order the production of documents, inspections, examinations for discovery, examination of witnesses who cannot attend the hearing by reason of illness, or other cause, or of witnesses who are out of Ontario as the nature of the case and the ends of justice may require. Notices to produce documents, and notices to admit may be served by either party; the party commencing proceedings shall have the right to begin at the hearing; there shall be two days' notice of the service of notice of motion and of proceeding, and no notice of motion shall be necessary unless an appointment has been obtained for a hearing; the Board may extend or abridge the time for doing any act or taking any proceedings as may be deemed just. Trials shall take place during the sittings or Christmas vacations of the High Court only unless in cases of urgency; the costs of and incidental to any proceedings shall be borne as directed by the Board, and may be fixed sum, or taxed by the secretary, or the Board may direct that payments to proceedings shall be made at any time upon such terms as the Board may deem just; no proceedings shall be invalidated or affected by any technical objection or objection based upon defects in form unless the applicant or his solicitor shall have waived such formal order made by the Board shall be served by the Board to the respondent or his solicitor for approval, and in the event of the parties failing to agree, the order shall be settled by the Secretary, and after being signed, sealed and entered in the books.

Attached is a schedule setting forth the matters in which it is required of railway companies to obtain the sanction of the Board on applications having reference to plans, profiles and surveys; to alter location of railways previously sanctioned or completed

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pletion of lines; to take additional lands for more space, snow protection, etc., for branch lines, railway crossings and junctions, highway crossings, bridges, tunnels, viaducts, trestles, etc., over 18 ft. span; to carry lines or wires for the conveyance of electricity for light, heat or power, across a railway. The schedule also contains regulations governing signals and speed where trains cross another railway at rail level without stopping, under order of the Board; regulations as to the requirements where the Board has ordered a company to adopt and put in an interlocking and derailing device and signal system at rail level crossings and junctions; general requirements for interlocking at drawbridges; regulations and specifications for telephone or telegraph wires crossing railway tracks; and regulations to be observed in case of accidents and the investigation thereof, which were given on pg. 457 of our Aug. issue.

September Birthdays.

Many happy returns of the day to—

W. D. Barclay, ex-Manager, Alberta Ry. & Coal Co. and Great Falls and Canada Ry., now a member of the firm of Foley Bros., Larsen & Co., contractors, St. Paul, Minn., born at Campbellton, N.B., Sept. 23, 1852.

G. T. Bell, General Passenger and Ticket Agent, G.T.R., Montreal, born there Sept. 7, 1861.

W. H. Biggar, K.C., General Solicitor, G.T.R., Montreal, born at the Carrying Place near Trenton, Ont., Sept. 19, 1852.

E. R. Bremner, Division Freight Agent, Ottawa Division, G.T.R., Ottawa, born in Toronto, Sept. 9, 1875.

M. H. Brown, General Freight Agent, Ontario Division C.P.R., Toronto, born at Victoria Square, Ont., Sept. 2, 1866.

F. R. F. Brown, ex-Mechanical Superintendent, Intercolonial Ry., now at Montreal, born at Helensburg, Dumbartonshire, Scotland, Sept. 29, 1845.

W. G. Brownlee, Superintendent, G.T.R., Eastern Division, Toronto, born at Lawrenceville, Ill., Sept. 9, 1858.

J. R. Bruce, Traffic Auditor, Intercolonial Ry., Moncton, N.B., born at Portsoy, Banffshire, Scotland, Sept. 23, 1848.

W. B. Bulling, Assistant Freight Traffic Manager, Eastern Lines C.P.R., Toronto, born in Montreal, Sept. 16, 1858.

R. L. Burnap, General Freight Agent, Central Vermont Ry., St. Albans, Vt., born Sept. 20, 1872.

A. D. Cartwright, Secretary Board of Railway Commissioners, Ottawa, born at Kingston, Ont., Sept. 20, 1864.

W. F. Egg, ex-City Passenger Agent, C.P.R., Montreal, born at Plymouth, Eng., Sept. 7, 1859.

A. W. Ecclestone, Southern Passenger Agent, Central Vermont Ry., New York, born at Hamilton, Ont., Sept. 25, 1858.

Hon. H. R. Emmerson, M.P., Minister of Railways and Canals, Ottawa, born at Maugerville, N.B., Sept. 25, 1853.

F. A. Folger, jr., General Superintendent, Kingston & Pembroke Ry., Kingston, Ont., born Sept. 17, 1865.

C. B. Foster, District Passenger Agent, C.P.R., Toronto, born at Kingston, N.B., Sept. 30, 1871.

L. A. Hamilton, ex-Land Commissioner, C.P.R., born at Penetanguishene, Ont., Sept. 30, 1852.

L. B. Howland, President and General Manager, Irondale, Bancroft & Ottawa Ry., Irondale, Ont., born at Lambton Mills, Ont., Sept. 2, 1869.

G. R. Huntingdon, General Superintendent, Minneapolis, St. Paul & Sault Ste. Marie Ry., Minneapolis, Minn., born Sept., 1867.

J. Hone, jr., City Passenger and Freight Agent, C.P.R., Quebec, born in Montreal, Sept. 8, 1873.

J. E. Hutcheson, Superintendent Ottawa Electric Ry., Ottawa, born at Brockville, Ont., Sept. 15, 1858.

A. C. Killam, K.C., Chairman Board of Railway Commissioners for Canada, Ottawa, born at Yarmouth, N.S., Sept. 18, 1849.

W. H. Kelson, ex-General Storekeeper, C.P.R., now of the W. H. Kelson Co., Montreal, born at Bath, Eng., Sept. 5, 1850.

S. B. Kramer, Master of Transportation, G.T.R., Montreal, born at Maryland, Que., Sept. 25, 1865.

R. E. Larmour, city freight agent, C.P.R., Winnipeg, born at Brantford, Ont., Sept. 26, 1868.

H. D. Lumsden, C.E., Chief Engineer National Transcontinental Ry., Ottawa, born at Belhaire, Scotland, Sept. 7, 1844.

J. Bruce Macdonald, Director Niagara Navigation Co., born at Glengarry, Ont., Sept. 19, 1850.

G. A. Mountain, Engineer, Board of Railway Commissioners for Canada, Ottawa, Ont., born at Quebec, Sept. 28, 1860.

J. F. Mundle, city freight agent, C.P.R., Montreal, born at Prescott, Ont., Sept. 20, 1857.

B. S. Murray, Route Agent, Canadian Express Co., London, Ont., born at Glenwood, N.Y., Sept. 17, 1856.

E. D. Nash, Assistant Superintendent Southern Division Central Vermont Ry., New London, Conn., born at Shelburne Falls, Mass., Sept. 24, 1852.

J. Oborne, General Superintendent, Eastern Division, C.P.R., Montreal, born there Sept. 19, 1861.

S. N. Parent, Chairman National Transcontinental Ry. Commission, born at Quebec, Sept. 12, 1855.

E. D. Parker, Assistant General Freight Agent, Minneapolis, St. Paul & Sault Ste. Marie Ry., St. Paul, Minn., born at Granville, Ohio, Sept. 20, 1839.

Jno. Paul, General Freight Agent, Niagara, St. Catharines and Toronto Ry., born in Euphrasia tp., Grey County, Ont., Sept. 13, 1858.

W. D. Robb, Superintendent of Motive Power, G.T.R., Montreal, born at Longueuil, Que., Sept. 21, 1857.

W. H. Rose, ar, General Car Accountant, G.T.R., Mo real, born at Wadebridge, Cornwall, Eng., Sept. 26, 1837.

D. Sutherland, General Freight Agent, Newfoundland Ry., St. John's, Nfld., born at Niagara Falls, Ont., Sept. 21, 1873.

W. R. Tiffin, Superintendent, Northern Division, G.T.R., Allandale, Ont., born at Hamilton, Ont., Sept., 1844.

W. Whyte, 2nd Vice-President, C.P.R., Winnipeg, born at Charleston, Scotland, Sept. 15, 1843.

H. A. Young, Traffic Manager, Montreal and Lake Superior Line, Hamilton, Ont., born at Brooklyn, N.Y., Sept. 1, 1864.

The C.P.R., having successfully established a system of checking baggage from any station on its line to Liverpool, Eng., has under consideration a proposal to extend the system so as to be able to check baggage through by its own steamers and trains from Liverpool to Hong Kong.

The Grand Trunk Pacific Town and Development Co. has been incorporated under the Dominion Companies' Act, with a capital of $5,000,000 and offices at Montreal, for the purpose of acquiring lands and developing the same; constructing and operating tramways on the lands so acquired, and to engage in a variety of business enterprises. The provisional directors are: C. M. Hays, F. W. Morse, W. Wainwright, W. H. Biggar and D'A. Tate, all G.T.R. or G.T. Pacific Ry. officers or directors.

Orders by the Railway Commissioners.

The following orders have been issued by the Board of Railway Commissioners:

1223. June 21.—Authorizing the C.P.R. to construct an extension of the spur line to the Toronto Junction Lumber Co.'s premises, Toronto, Ont.

1224. Nov. 8, 1905.—Granting permission to the C.P.R. to construct and operate an additional track across Trinity, Mill, Parliament and Berkeley streets, Toronto.

1226. Dec. 14, 1905.—Re Oliver Milling Co. See Aug., pg. 445.

1227. June 5.—Approving standard freight tariff C.R.C. 3, of the Hampton and St. Martin Ry.

1228. June 22.—Sanctioning location plans for the third, fourth and fifth sections of the extension up the North Fork of the Kettle River, B.C., for the Kettle Valley Lines.

1229. June 13.—Authorizing the Midland Ry. of Manitoba to cross the C.P.R. tracks at Plum Coulee, Man., at a point different from that mentioned in the order of June 1.

1231. June 21.—Sanctioning location of the James Bay Ry. through several townships in Nipissing district, Ont.; mileage 0 to mileage 27, Sudbury Jct., north.

1232 to 1237 inclusive. June 23.—Granting permission to the Bell Telephone Co. to carry its lines across the C.P.R. at points four and five miles east of Souris, Man.; and across the G.T.R. at the following points: one mile east of Omemee Jct., Ont.; 1¼ miles north of Penetanguishene, Ont.; west of Stayner station, Ont.; and ¼ mile south of Mount Albert, Ont.

1238. June 5.—Varying the order of Feb. 10, 1904, providing for the place and mode of junction of the Vancouver, Westminster and Yukon Ry. with the C.P.R. in New Westminster, B.C., by approving of plans agreed upon.

1239. May 28.—Directing the C.P.R. to construct two undercrossings of its Guelph and Goderich Ry., on the farm of H. J. Lackner, Wellesley tp., Ont., the applicant being permitted to build wing fences thereto at his own expense.

1240 and 1241. June 23.—Authorizing the Brantford Electric and Operating Co. to carry its electric light wires over the G.T.R. line at St. Paul ave., and at Clarence and Nelson streets respectively, Brantford, on terms and conditions agreed to and set out in the order.

1242. May 25.—Granting permission to the Windsor, Essex and Lake Shore Rapid Ry., to carry its line under the Michigan Central Rd. at Essex, Ont., by means of a subway.

1245. June 26.—Authorizing the G.T.R. to expropriate certain lands in lot 16, con. 3, Tay tp., Simcoe county, Ont., for the purposes of its line.

1246. June 27.—Authorizing the St. John Ry. to carry its tracks across the C.P.R. in Lancaster parish, St. John, N.B.

1249 and 1250. June 28.—Granting permission to the James Bay Ry. to construct bridges over the Key River, 54.3 miles north of Parry Sound, and over the Little Key River, 53.6 miles north of Parry Sound, Ont.

1251. June 21.—Approving supplement to standard freight tariff C.R.C., no. E1, of the C.P.R.

1252. April 24.—Authorizing the Quebec, New Brunswick and Nova Scotia Ry. to construct a branch from the proposed main line at mileage 7.20 to the Quebec and Lake St. John Ry.

1253. June 14.—Approving of the amalgamation of the Great Northern Ry. Co. of Canada, the Chateauguay and Northern Ry.

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Co., and the Quebec, New Brunswick and Nova Scotia Ry. Co., under the name of the Canadian Northern Quebec Ry. Co.

1254. July 4.—Authorizing the James Bay Ry. to construct its line across Todmorden road, on lot 14, con. 3, from the bay, tp. of York, Ont.

1256. July 5.—Approving plans for the alteration of the C.P.R. bridge over Stockers' Creek, between St. Anne's and Vaudreuil, Que.

1257. July 5.—Authorizing the Ontario Pipe Line Co. to carry its natural gas mains underneath the G.T.R. tracks at eight points in Hamilton, Ont., upon conditions agreed upon and set out in the order.

1258. July 5.—Authorizing the Ontario Pipe Line Co. to carry its natural gas mains underneath the Toronto, Hamilton and Buffalo Ry. tracks at 20 points in Hamilton, Ont., upon conditions agreed upon and set out in the order.

1259. July 5.—Approving plans for the strengthening of the bridge at Third Street, Chatham, Ont., for the Chatham, Wallaceburg and Lake Erie Ry.

1261. July 5.—Authorizing the James Bay Ry. to construct two bridges over the Little Key River at 53.5 and 53.6 miles north of Parry Sound, Ont.

1262. July 5.—Granting permission to the C.P.R. to construct a spur line from a point 64 miles west of Chapleau, northwesterly and westerly through tp. 46, Algoma District.

1264. July 12.—Authorizing the C.P.R. to divert the public roads from their present crossings of its Sudbury-Kleinburg branch at mileage 162.85 and mileage 163.06 to a new crossing at mileage 162.95.

1265. July 12.—Granting permission to the C.P.R. to reconstruct the bridge 1.7 Shuswap section, over the Columbia River at Revelstoke, B.C.

1266. July 12.—Authorizing the G.T.R. to lay an additional track across Mill St., Creemore, Ont.

1267. July 12.—Granting permission to the People's Telegraph and Telephone Co. to construct a telephone line across the Canada Atlantic Ry. tracks at Barry's Bay, Ont.

1268. July 12.—Authorizing the C.P.R. to construct a permanent bridge at mileage 44.83, White River section, Lake Superior Division.

1272, 1273 and 1274. July 6.—Granting permission to the C.P.R. to construct certain additional spur lines in St. John, Winnipeg, Man.

1277. July 16.—Authorizing the Toronto and York Radial Ry. to carry its line across the G.T.R. in Scarboro tp., near Toronto, by an overhead bridge.

1280. July 13.—Authorizing the Midland Ry. of Manitoba to operate construction trains across the C.P.R. at Plum Coulee, Man., upon certain conditions.

1281. July 13.—Authorizing the Brandon, Saskatchewan and Hudson Bay Ry. to operate construction trains across the Canadian Northern Ry. in Turtle Mountain municipality, Man.

1282. July 12.—Sanctioning deviation from the previously located line of the Guelph and Goderich Ry., between stations 2064 + 10 O.C. and 2129 + 96.7 O.C., for the C.P.R.

1283. July 18.—Varying the order of Sept. 4, 1905, respecting the construction by the Canada Atlantic Ry. of a subway under the railway on Bank St., Ottawa.

1284. July 13.—Approving plans for the alteration of bridge at milepost 53.50 between Coteau and Ottawa, Ont., for the Canada Atlantic Ry.

1285. July 4.—Authorizing the G.T.R. to construct a siding at Dunnville, Ont., upon terms agreed upon in by-law 7, 1906, of the town of Dunnville.

1286. July 17.—Granting permission to the Brandon, Saskatchewan and Hudson Bay Ry. to construct its telegraph line across the C.P.R. at Boissevain, Man., subject to the standard specifications governing the crossing of railways by telephone wires, so far as they are applicable to telegraph lines.

1287. July 17.—Granting permission to the Midland Ry. of Manitoba to construct a telegraph line across the C.P.R. at Elm Creek, Man., upon similar conditions to those set forth in order 1286.

1290 and 1291. July 17.—Authorizing the Midland Ry. of Manitoba to construct a telegraph line across the Canadian Northern Ry. at Roland and Carman, Man., upon certain conditions and specifications set out in the orders, and differing from those referred to in order 1287.

1292. July 24.—Authorizing the Brandon, Saskatchewan and Hudson Bay Ry. to use the grade crossing of the C.P.R. near Boissevain, Man., referred to in the Board's order of Nov. 14, 1905.

1293. July 24.—Authorizing the Midland Ry. of Manitoba to use the grade crossing of the Canadian Northern Ry. at Roland, Man., referred to in the Board's order of April 11.

1294. July 19.—Granting permission to the Toronto and Niagara Power Co. to carry its power transmission lines across the G.T.R. tracks at points near Toronto, Bronte, Stony Creek, and Allanburg, Ont.

1295. July 24.—Extending the time for the construction by the C.P.R. of a crossing of its Toronto-Sudbury line over the G.T.R. at Coldwater, Ont.

1296. July 24.—Authorizing the C.P.R. to divert the highway between concessions 6 and 7, Albion tp., Peel county, and to carry it underneath the line.

1298. July 19.—Approving location plans for the Georgian Bay and Seaboard Ry., from Brechin, mileage 41, to the east boundary line of Ontario county, Ont., mileage 49.

1299. July 19.—Authorizing the C.P.R. to carry its tracks underneath the highway at concessions 8 and 9, Tecumseh, Simcoe county, Ont., on the Toronto-Sudbury branch.

1300. July 19.—Approving location plans for the Georgian Bay and Seaboard Ry. from Silver Creek, mileage 25, to the Narrows, mileage 30, South Orillia tp., Simcoe county, Ont.

1301. July 19.—Approving location plans for the Georgian Bay and Seaboard Ry. from the Narrows, mileage 30, to Brechin, Ont., mileage 41.

1302. July 19.—Approving location plans for the James Bay Ry. from Wendover station, mileage 28, to Orleans station, mileage 40, in the county of Russell, Ont.

1303. July 19.—Approving location plans for the Georgian Bay and Seaboard Ry. from Fesserton, mileage 10, to Silver Creek, mileage 25.

1304. July 19.—Approving location plans for the Georgian Bay and Seaboard Ry. from between concessions 5 and 6, Tay tp., mileage 3, near Victoria Harbor, to Fesserton, mileage 10.

1305. July 25.—Sanctioning revised location plans for the St. Jerome-Montford branch of the Great Northern Ry. of Canada between mileage 5 and 6.

1306. July 25.—Sanctioning revised location plans for the G.T. Pacific Ry., mileage 0 to mileage 20.401 east, and mileage 0 to mileage 8.852 west of St. Lazare, Man.

1307. July 25.—Sanctioning revised location plans for the Great Northern Ry. of Canada, St. Jerome-Montford branch, between mileage 11.7 and mileage 12.2.

1308. July 25.—Sanctioning revised location plans for the Great Northern Ry. of Canada, St. Jerome-Montford branch, between mileage 12.2 and mileage 13.3.

1309. July 25.—Authorizing the Vancouver, Westminster and Yukon Ry. to construct a branch from the crossing of the C.P.R. at Sapperton, B.C., to the Fraser River sawmill.

1310. July 25.—Authorizing the G.T.R. to construct a branch line in Crowland tp., Welland county, Ont., to the premises of the Ontario Iron and Steel Co.

1311. July 25.—Approving revised location plans of the G. T. Pacific Ry. from tp. 17 n., r. 30 w., to north line sec. 8, tp. 18, r. 30 w. 1st meridian, Saskatchewan, mileage 8.859 to mileage 14.188.

1312 and 1313. July 25.—Sanctioning revised location plans for the Great Northern Ry. of Canada, St. Jerome-Montreal branch, between mileage 1.2 and mileage 3.3., and between mileage 6.5 and mileage 8.8.

1314. July 25.—Authorizing the G.T.R. to construct a siding south of Mary St., London, Ont.

1316 to 1320 inclusive. July 19.—Authorizing the Bell Telephone to carry its lines across the railway tracks, subject to the standard conditions and specifications for telephone crossings, at the following points: G.T.R. at St. Etienne St., Montreal; Michigan Central Ry. at Niagara Falls, Ont., two orders; C.P.R., 200 ft. east of Vaudreuil station, Que.; C.P.R. at St. Etienne St., Montreal.

1321. July 19.—Granting permission to the Toronto and Niagara Power Co. to carry its power transmission line across the Toronto, Hamilton and Buffalo Ry. at the Escarpment, Hamilton, Ont.

1324 and 1325. Aug 1.—Authorizing the Canada Atlantic Ry. to expropriate certain lands in Ottawa, Ont.

Alleged Freight Rates Discrimination.

The following letter was sent by the Secretary of the Board of Railway Commissioners to the Chairman of the Advisory Committee of the Canadian Freight Association on July 4:

"Re freight rates discrimination in favor of Michigan as against Western Ontario. I am directed by the Board to inform you that it has had under consideration the several complaints from points in Western Ontario against the charging by railway companies of heavier freight rates on shipments to points in Canada eastward therefrom, than are charged by the said companies for shipments to the same points from points in the United States west of the Detroit River, and the Board is of opinion that some attempt should be made to avoid this anomaly.

"I am further directed to point out that the provisions of that part of sub-section 3 of sec. 252 of the Railway Act, 1903, known as the "Long and Short Haul Clause," have been adopted in the legislation of the U.S. as well as in that of Canada; and to say that these provisions appear to the Board to be consonant with natural justice, and such as should be applied, as far as reasonably possible without disregarding proper interests, to the cases in question. It appears to the Board that the clause in question is applicable to joint tariffs as well as to the separate tariffs of one company, and the Board finds that there are in force numerous joint tariffs relating to traffic from points in the U.S. west of the Detroit River to points in Canada eastward therefrom, which, in themselves, or by comparison with tariffs for traffic carried easterly from points in Western Ontario, where the shorter distance is included in the longer one, violate this rule. I am also directed to point out that, in the clause referred to, competition alone is mentioned as justifying any modification of the general rule.

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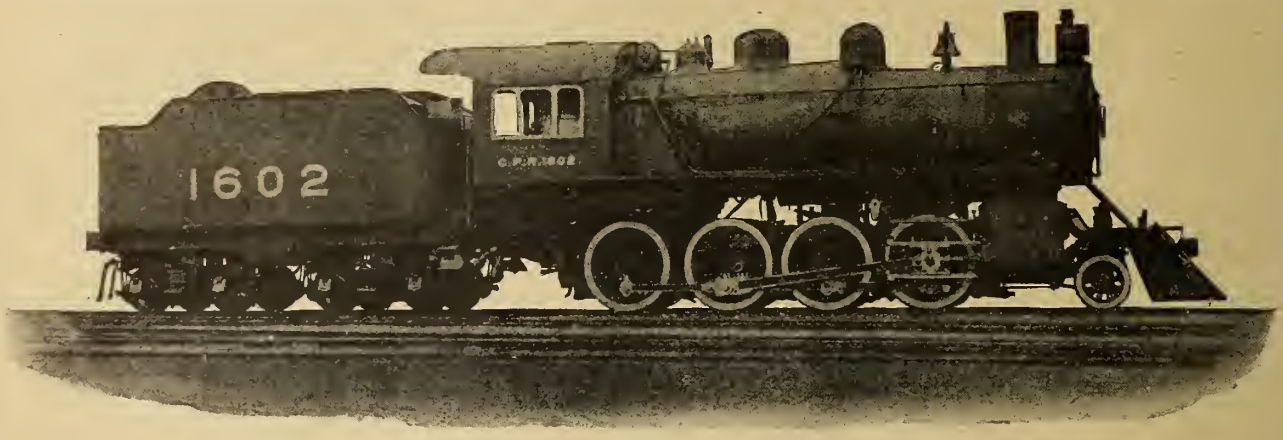

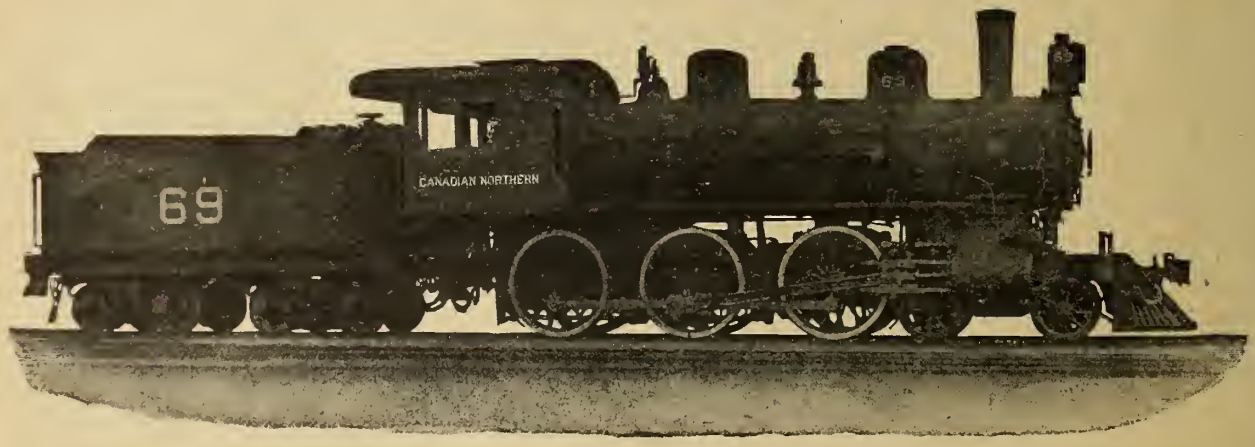

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Alfred Davis, 26 Victoria Street,
Westminster, S.W.

"The Board recognizes that the conditions of this traffic are affected by the existence of companies in the U.S. independent of those operating in Canada, and by the operation of the corresponding clause in the statute law of the U.S., and that the harmonizing of interests in making the changes necessary to apply the rule to traffic originating in the U.S. destined for points in Canada, is a work of difficulty, and it thinks that the Canadian railway companies should be given an opportunity to lay a scheme before the Board for its consideration after negotiations with companies operating in the U.S., and for that purpose the board will defer further consideration of those complaints for a period of 90 days."

Water Supply of Ontario Railways.

The latest annual report of the Ontario Provincial Board of Health deals with the water supply of railways, and gives a list of the sources of supply for the principal lines in Ontario, which are commented on as follows by the Secretary, C. A. Hodgetts, M.D.:

"From these tables, it will be noted that the chief source of supply of the water used for drinking purposes, is derived from public systems, but in some instances, particularly in the case of the G.T.R., well water is used. As to the freedom of both these classes of water from pollution, the public at present have no guarantee—and as to their potability, it can only be said that those derived from the public supply alone have the approval of the Board—the others should certainly be examined with a view to ascertain their purity. The method also in which it is carried should be considered. Of the character of the waters supplied to the engines, that is a matter which concerns only the railway companies, but the protection of the employes and general public against their use is one that certainly comes within the range of this Board. I would therefore recommend that for the better protection of the travelling public and railway employes, this Board require the bacterial analysis of all water supplies used on railways in this province, and that only those approved by this Board be used for drinking purposes. Further, the water receiver in each car should be so constructed as to prevent the possibility of passengers or others removing the same, and to this end the receiver should either be concealed, or the top kept locked. For the preventing of the use of waters intended for engine and boilers only, a notice to the effect that 'this water is not intended for drinking purposes'; possibly is polluted, and the person drinking the same is in danger of suffering therefrom, should be attached to all tanks and at all outlets where there is any possibility of the same being used for drinking purposes—and further, similar notices should be posted up in all engines, to serve as a warning to employes. The company being further required to provide a suitable receptacle for drinking water in each engine."

The Intercolonial Ry. is arranging to issue market tickets, by which second-class return tickets will be issued at single first-class fares. These tickets will only be issued on certain days in the week from a limited area round a number of central points, and will be available only on the day of issue.

The J. McDiarmid & Co., Ltd., has been incorporated under the Manitoba Companies' Act, with a capital of $150,000 and offices at Winnipeg, to take over the business of J. McDiarmid & Co., and to construct public works, including railways, tramways, etc., and to carry on other businesses. The provisional directors are: James, John, and P. McDiarmid, E. Cass, P. Muir and T. Borgford, of Winnipeg.

Canadian Northern Ry. Earnings, etc.

Gross earnings, working expenses, net profits, increases or decreases over 1904-05, from July 1, 1905:

	Earnings.	Expenses.	Net Earnings.	Increase or Decrease.
July..	$395,100	$ 252,600	$ 142,500	$ 51,400+
Aug..	357,900	246,200	111,700	12,200+
Sept..	378,500	268,300	110,200	14,000+
Oct..	557,100	298,900	258,200	113,600+
Nov.	566,800	341,700	225,100	68,700+
Dec.	437,800	295,600	142,200	7,100+
Jan.	359,900	260,600	99,300	10,800+
Feb.	301,400	217,900	83,500	23,300+
Mar.	441,600	324,200	117,400	46,800+
Apr.	544,800	349,100	195,700	112,300+
May	610,100	397,600	212,500	111,900+
June	612,100	398,700	213,400	78,700+
	$5,563,100	$3,651,400	$1,911,700	$650,800+

Average mileage in operation during the year ended June 30, 2,064, against 1,576 for same period 1904-05.

Approximate earnings for July, $603,800, against $395,100 for July, 1905.

C.P.R. Earnings, Expenses, etc.

Gross earnings, working expenses, net profits, increases or decreases over 1904-5, from July 1, 1905:—

	Earnings.	Expenses.	Net Profits.	Increase or Decrease.
J'ly	$4,629,174.95	$2,991,397.29	$1,449,652.14	$188,125 52+
Aug.	4,796,733.98	3,005,088.07	1,791,645.91	263,715.48+
Sept.	4,872,575.38	3,086,565.35	1,776,010.05	507,202 49+
Oct.	5,722,767.30	3,448,696.12	2,274,071.18	707,957.27+
Nov.	5,741,543.12	3,380,232.13	2,316,310.99	691,736.25+
Dec.	5,619,182.83	3,272,599.52	2,346,583.31	683,914.48+
Jan.	4,422,690 96	3,155,456.94	1,267,234.02	844,565.55+
Feb.	4,224,451.76	3,018,707.98	1,205,743.78	903,572.46+
Mar.	5,093,286.24	3,248,621.74	1,844,664.50	661,837.46+
April	5,490,999.86	3,148,441.02	2,342,558.84	810,752.63+
May.	5,579,003.15	3,391,349.52	2,187,662.63	799,727.75+
June	5,477,348.63	3,539,298.87	1,938,049.76	435,116.83+
	$61,669,758.16	$38,696,445.53	$22,973,312.63	$7,498,224.17+

Approximate earnings for July, $5,882,000 against $4,548,000 for July, 1905.

DULUTH, SOUTH SHORE AND ATLANTIC RY.—Gross earnings for June, $276,257.35; net earnings $89,201.08, against $255,036.05 gross and $63,325.06 net for June, 1905. Net earnings for 12 months ended June 30, $1,000,315.64 against $854,230.93 for same period 1904-05. Approximate earnings for July, $279,213 against $254,311 for July, 1905.

MINERAL RANGE RY.—Approximate earnings for July, $56,796 against $59,559 for July, 1905.

MINNEAPOLIS, ST. PAUL AND SAULT STE. MARIE RY.—Gross earnings for June, $1,015,698.30; net earnings, $425,532.27, against $790,849.21 gross and $376,323,16 net for June, 1905. Net earnings for 12 months ended June 30, $5,789,902.21 against $4,214,014.25 for same period 1904-05. Approximate earnings for July, $998,339 against $746,541 for July, 1905.

Grand Trunk Ry. Earnings, Expenses, etc.

The following statement of earnings, supplied from the Montreal office, includes the G.T. of Canada, Canada Atlantic Ry., the G.T. Western, and the Detroit, Grand Haven & Milwaukee Rys.

	1906.	1905.	Increase.	Decrease.
July.....	$3,682,809	$3,301,254	$381,655	....

Subject to audit, the accounts for the half-year to June 30, 1906, show the following results:

Gross receipts		£3,021,600
Working expenses, including arrears of Grand Trunk, Toledo, Saginaw and Muskegon, and St. Clair Tunnel, Michigan taxes		£2,184,800
Net receipts		£ 836,800
Net revenue charges for the half-year, less credits		503,800
Balance		£ 333,000
Deduct Canada Atlantic Ry. deficiency for half-year	£30,300	
Less Grand Trunk Western repayment of advances June, 1901	£6,200	
Less Detroit, Grand Haven and Milwaukee surplus for the half-year	£1,200	£ 7,400 £ 22,900
Surplus		£310,100

In view of the result of the half-year, the Board have considered it advisable, as stated above, to close the Michigan arrears of taxes account, chargeable against the G.T.R. Co., instead of spreading the charge over two years as originally proposed.

The above surplus of £310,100 added to the balance of £4,500 from Dec., 1905, makes a total amount of £314,600 available for dividend, which will admit of the payment of the dividends for the half-year on the 4% guaranteed stock and first and second preference stocks, leaving a balance of about £16,500 to be carried forward.

The accounts of the Grand Trunk Western Ry Co. for the year ended June 30, 1906, show a surplus sufficient to provide for the interest on the first mortgage bonds, and leave a balance of about £19,100.

TRAFFIC RECEIPTS OF THE SYSTEM.

Aggregate from July 1 to July 31:

	1906.	1905.	Increase.	Decrease.
Grand Trunk	£569,465	£519,791	£49,674	...
Canada Atlantic	37,027	33,981	3,046	...
G. T. Western	98,699	81,252	17,447	....
D. G. H. & M.	35,817	28,512	7,305	....
Total.....	£741,008	£663,536	£77,472	....

Railway Rolling Stock Notes.

The Quebec Central Ry. is reported to be asking prices on 500 box cars of 60,000 lbs. capacity.

The Crossen Car Manufacturing Co., Cobourg, Ont., has delivered five first-class day coaches to the Canadian Northern Ry.

The C.P.R., between July 20 and Aug. 13, placed orders at its Angus, Montreal, shops, for nine snow ploughs, seven flangers and 1,000 box cars.

The 1,000 box cars for which an order has been placed by the C.P.R. at its Angus, Montreal, shops, are of the same general dimensions and construction as those referred to on pg. 459 of our Aug. issue.

Recent additions to the rolling stock of the G.T.R. have been ten 10-wheel passenger locomotives built by the Locomotive and Machine Co. of Montreal, and 250 box cars, 60,000 lbs. capacity, built by Rhodes, Curry & Co., Amherst, N.S.,

The Canadian Northern Ry. has ordered from the Canadian Locomotive Co., Kingston, Ont., 15 locomotives in addition to the 15 referred to on pg. 459 of our Aug. issue. It has also received from the Canadian Locomotive Co., one locomotive out of a previous order.

The C.P.R. is conducting some tests with a smoke consuming device on some switching engines at the Toronto terminals. The system, which is not altogether a new one, consists of a number of steam jets in the side sheets of the firebox blowing transversely across the grates.

The C.P.R., between July 20 and Aug 13, received the following rolling stock: three locomotives, two dining cars, three first-class cars, 10 suburban cars, two baggage cars, 12 passenger refrigerator cars, 360 box cars, 15 stock cars, from its Angus, Montreal, shops; and five vans from its Farnham, Que., shops.

The Atlantic, Quebec and Western Ry. at present owns an 8-wheel and a 10-wheel locomotive, a steam shovel, 10 Rodger ballast cars, eight flat cars, 60,000 lbs. capacity, and two box cars, 60,000 lbs. capacity. It is probable that orders will be placed before the end of the year for two passenger cars, two baggage cars and a snow plough.

The specifications for the five first-class suburban cars which the C.P.R. is having constructed at its Angus, Montreal, shops, provide for: length, 65 ft.; breadth, 9 ft. 10½ in.; accommodation, 72; body and underframe, wood; axles and brasses, 5 by 9 in.; springs, 38 in. quadruple elliptic; wheels, 36¼ in., steel tyred; trucks, four-wheel passenger; Simplex brake beams; Westinghouse high speed air brakes; seats upholstered in rattan.

The 1,900 box cars, 30 tons capacity, for which an order has been placed by the G.T. Pacific Ry., with the Canada Car Co., Montreal, will be 36-ft. long, 8 ft. 6 in. wide, and 8 ft. high inside measurement, with a door opening of 6 ft. They will be mounted on diamond archbar type trucks, having a wheel base of 5 ft. 2 in.; and provided with 4¼ by 8 in. journal boxes, 33 in. wheels, Simplex brake beams; Simplex body and truck bolsters, and Westinghouse air brake.

The 600 Hart convertible ballast cars, 80,000 lbs. capacity, which the G. T. Pacific Ry. has ordered from the Canada Car Co.,

PINTSCH LIGHT

The new Pintsch Gas Inverted Mantle Lamp for passenger cars increases illumination over three times with the same consumption of gas—a revolution in train lighting.

CAR HEATING

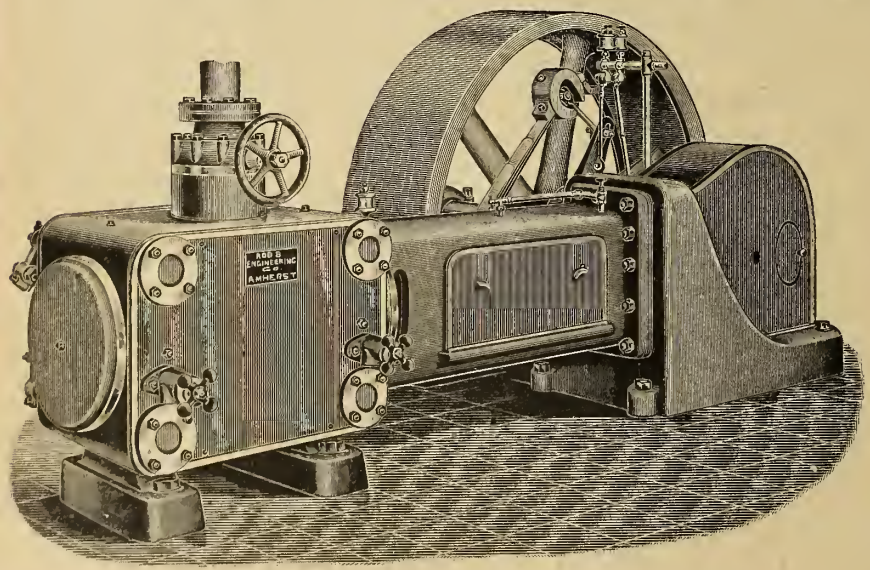
160 railroads are using on 19,000 cars the Safety devices for direct steam and hot water heating.

SAFETY CAR HEATING AND LIGHTING COMPANY

160 Broadway - NEW YORK CITY

CHICAGO ST. LOUIS PHILADELPHIA SAN FRANCISCO

Our Corliss Engines



Are fitted with Robb-Armstrong Corliss valve gear which has the following good points:—

POSITIVELY DRIVEN
ENCASED IN OIL
RUNS NOISELESSLY
MINIMUM FRICTION
MINIMUM WEAR

ROBB ENGINEERING CO., LIMITED, AMHERST, N.S.

DISTRICT OFFICES
320 Ossington Avenue, Toronto; Wm. McKay, Manager.
Bell Telephone Building, Montreal; Watson Jack, Manager.
355 Carlton Street, Winnipeg; J. F. Porter, Manager.

Montreal, will be 34 ft. long over end sills, 32 ft. 2 in. long inside; 8 ft. 8 in. wide inside, and 3 ft. 0¼ in high above floor. They will be mounted on trucks of the diamond arch bar-type, having a wheel base of 5 ft. 4 in.; 5 by 9 in. journal boxes; 33 in. wheels; Simplex body and truck bolsters, and Westinghouse air brake.

Following are general specifications of the 102 box cars, 30 tons capacity which the C.P.R. is having built at its Angus, Montreal, shops: length, 36 ft. inside; width, 8 ft. 6 in. inside; height, 8 ft. inside; bodies and underframes, wood; axles and journal bearings, 4¼ by 8 in.; springs, C.P.R. standard; trucks, all steel diamond pattern; wheels, 33 in. cast iron; Simplex body and truck bolsters, brake beams, Susemihl roller side-bearings and Westinghouse air brakes.

We have been advised that the press reports, to which reference was made in our last issue, that 20 locomotives had been ordered by the G.T.R. from the American Locomotive Co., had reference to an old order, and that the locomotives had already been delivered. Ten of the locomotives were delivered to the G.T.R. by the Locomotive and Machine Co. of Montreal, and the other ten to the Central Vermont Ry., from the American Locomotive Co.'s Schenectady works.

built after the general type of a box car, but with side doors of the refrigerator car type, and with steel-tyred wheels, with steam-pipe and air signal pipe underneath car in order that they may be run in passenger service.

The C.P.R. has under construction at its Angus, Montreal, shops, 30 cars of the Rogers-Hart convertible ballast type, which can be made to dump either at the side or in the centre of the track. The specifications provide for length inside as a hopper car, 22 ft.; length inside as a gondola car, 32 ft. 2 in.; width, inside, 8 ft. 8 in.; height of side, floor to top of sides, 3 ft. 0¼ in.; length over end sills, 34 ft.; breadth over frame, 9 ft.; bodies and underframe, wood; axles and journal bearings, 5 by 9 in.; springs, C.P.R. standard; trucks, all steel, diamond pattern; wheels, 33 in. cast iron; Simplex body and truck bolsters, and brake beams; Susemihl roller side-bearings; Westinghouse air brakes.

The Prince Edward Island Ry. has ordered two 10-wheel locomotives, 3 ft. 6 in. gauge, from the Canadian Locomotive Co., Kingston, Ont. Following are the general dimensions, etc.:

WEIGHT.—In working order on drivers, 75,500 lbs.; total, 87,500 lbs.

WHEEL BASE.—Rigid, 11 ft. 1 in; total of engine, 19 ft. 11¼ in.; total of engine and tender, 38 ft. 6 in.

VALVES.—Style, piston; diameter, 5 in; greatest travel, 3½ in.; steam ports, ⅞ in.; lap, steam, ⅝ in.; lead, 3-16 in.

FRAMES.—Style, plate; thickness, ⅞ in.; between frames 49¼ in.

WHEELS.—Driving, number, 2; driving diameter, 42 in.; trailing diameter, 34 in.; back truck diameter, 36 in.; driving centres, cast steel; trailing centres, cast steel; journals, driving, 8 by 12 in.; journals, trailing, 7 by 12 in.; driving boxes, cast iron; crank pins, 3 in. diameter, 4 in. long.

BOILER.—Type, horizontal internal fire return tubular; working pressure, 180 lbs.; diameter outside, 4 ft. 7 in.; firebox type, corrugated flue; 5 ft. 6⅝ in. by 2 ft. 10 in.

TUBES.—Number and length, 121 of 2 ft. 8 in. by 1¾ in. diameter, 95 of 8 ft. by 1¾ in. diameter.

HEATING SURFACE.—Tubes, 485 sq. ft.; firebox, 51 sq. ft.; total, 536 sq. ft.; superheater, smokebox type, 21 tubes, 9 ft. long by 1¾ in. diameter; superheater surface, 62 sq. ft.; fuel, crude oil, 2,000 lbs., carried in tank built into plate frame; water, 900 gals., carried in 3 cylindric tanks underneath car body.

ATTACHMENTS.—1 in. slot burner; automatic blower and oil feed valve; 2 injectors; 1 with no. 5 body and no. 5 tubes, and 1 with no. 5 body and no. 3 tubes; 1 4-feed lubricator, oil tank pressure reducing valve; tube cleaning device; Westinghouse schedule A.M.T. automatic air brake; 8 in. air pump; lighting, acetylene throughout; telegraph attachment and air brake controlling valve at rear end of car, permitting to run car in either direction.

CAPACITY.—Main room, 40 seats; smoking room, 16 seats; total, 56 seats; baggage room, 7 ft. 6 in. long; engine room, 13 ft. 6 in. long.

The Brotherhood of Locomotive Engineers have selected Quebec as the place for the convention of 1907.

QUEBEC CENTRAL RY. MOGUL LOCOMOTIVE BUILT BY THE CANADIAN LOCOMOTIVE CO., KINGSTON, ONT.

The 15 first-class cars with smoking room which the C.P.R. is building at its Angus, Montreal, shops, are 65 ft. long and 9 ft. 10½ in. wide over frames; and have a capacity of 56 in the main room and eight in the smoking room. Body and underframe, wood; axles and brasses, 5 by 9 in.; 4-wheel passenger trucks; 38 in. elliptic quadruple springs; Simplex brake beams and Westinghouse high speed brake. There are also under construction at the Angus shops, six first-class cars of the same dimensions, but without smoking room.

Following are specifications of the five dining cars which the C.P.R. recently ordered at its Angus, Montreal, shops: length, 72 ft.; breadth, 9 ft. 10½ in. over frames; capacity, 36; body and underframe, wood; axles and brasses, 5 by 9 in.; springs, 38 in., quadruple elliptic; trucks, six wheel 5 by 9 in. journals; wheels, 36¼ in., steel tyred; seats, movable chairs; Simplex brake beams; Westinghouse high speed air brakes. These dining cars will have steps at the dining end only, the kitchen being carried out on the platform at the other end.

The C.P.R. is having built at its Angus, Montreal, shops, 25 box baggage cars, the specifications for which provide as follows: length, 36 ft. 8 in. over frames; breadth, 9 ft. 0⅝ in. over frames; body and underframe, wood; axles and brasses, 4¼ by 8 in.; trucks, all steel diamond pattern; wheels, 34 in., steel tyred; no platforms; Simplex bolsters and brake beams. These cars are being

DRIVING WHEELS.—Diameter, 57 in., over tires; material of centres, cast steel; journals, 7 by 7 in.

CYLINDERS.—Diameter, 16½ in.; stroke, 22 in.

BOILER.—Type, extended wagon top; working pressure, 200 lbs.; no. of tubes, 200; diameter of tubes, 1¾ in.; length of tubes, 12 ft.

TENDER.—Weight when loaded, 65,000 lbs.; capacity of tank, 3,000 imperial gallons; coal capacity, 5 tons; style of truck, 4 wheel; diameter of wheel, 30 in.; kind of wheel, steel tire; journals, 3¾ by 7 in.; Simplex brake beams; Westinghouse brake.

The Quebec Central Ry. has received from the Canadian Locomotive Co., Kingston, Ont., this summer, four mogul locomotives, an illustration of one of which is given on this page. Following are the general dimensions etc.:

ENGINE.—Weight, in working order, on drivers, 124,000, lbs.; total, 144,000 lbs.

WHEEL BASE.—Rigid, 15 ft.; total, 23 ft.; and tender, 49 ft. 8½ in.

DRIVING WHEELS.—Diameter, 56 in., cast iron centres; diameter and length of driving journals, 9 by 12 in.

CYLINDERS.—20 by 26 in.

BOILER.—Type, radial stayed; number of tubes, 280; diameter, 2 in.; length, 12 ft. 6 in.

BRAKES.—Westinghouse.

TENDER.—Weight loaded, 90,000 lbs.; capacity of tank, 4,000 imperial gals.; style of tank, level top; coal capacity, 5 tons; wheels—diameter, 33 in., steel tires; diameter and length of journal, 5 by 9 in.

Following are more complete specifications of the C.P.R. steam motor car, of which illustrations and some details were given in our last issue.

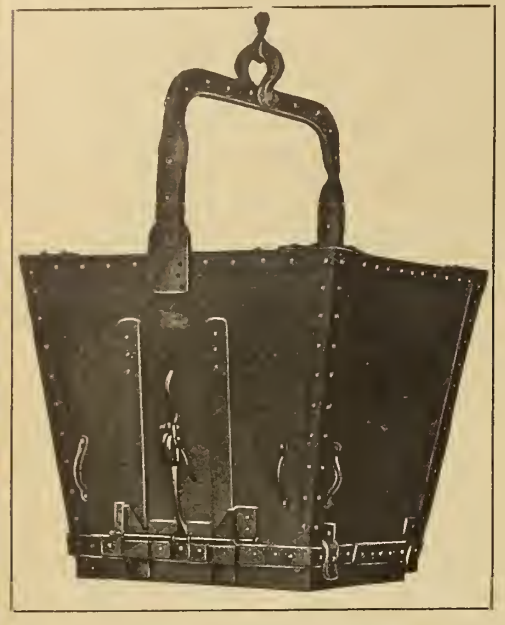
GENERAL DIMENSIONS.—Total weight, 136,600 lbs.; front truck, 82,880 lbs.; back truck, 53,720 lbs.; on drivers, 42,440 lbs.; on trailers, 40,440 lbs.; total wheel base, 64 ft.; between truck centres, 56 ft.; between truck wheel centres, front and back, 8 ft.; length of car body, 72 ft.; length of car over all, 80 ft

CYLINDERS.—Diameter, 10 in.; stroke, 15 in.

Canadian Industries Limited, is the title of a company incorporated under the Ontario Companies' Act, with a capital of $100,000 and offices at Toronto, to purchase or deal in securities; to acquire and carry on the undertakings of any corporation the shares of which may be purchased by the company, and to promote and assist financially by guarantee or otherwise any corporation or undertaking with which the company shall have business relations. The incorporators are: G. G. Ruel, G. F. Macdonnell, L. W. Mitchell, F. C. Annesley, and J. Barber, who are all connected with Mackenzie, Mann & Co.'s offices in Toronto.

In connection with the recent change of track on the G.T.R. lines, we are advised that prior to July 22, the system of operating trains on the right hand track in the direction in which they were moving had been in operation on the section between Junction Cut, near Hamilton and Sarnia, and on all double-track lines west of Detroit and St. Clair Rivers. The sections of the line on which the method of operating was changed from the left hand track to the right hand track, in the direction in which the trains are moving were: Between Montreal and St. Hubert, Que.; between St. Lambert and St. John's, Que.; between Montreal and Toronto; between Toronto and Hamilton, Ont.; between Hamilton and Niagara Falls, Ont.; between Allanburg and Welland Jct., Ont.; between Komoka and Windsor, Ont.; and between Allandale and Barrie, Ont.

THE CYCLOPEAN IRON WORKS CO.



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Cyclopean Bottom

DUMPING BUCKETS

and Scale Boxes.

CONTRACTORS' SUPPLIES

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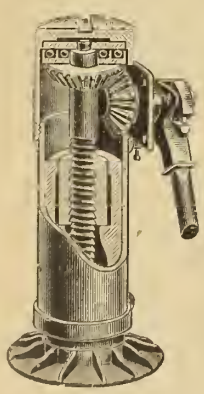
402-404 Claremont Ave., JERSEY CITY

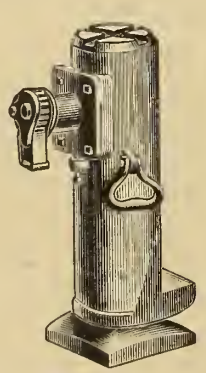
N.J., U.S.A.

NORTON JACKS

ARE MADE IN CANADA AND SAVE YOU DELAY AND DUTY ON AMERICAN MADE JACKS.

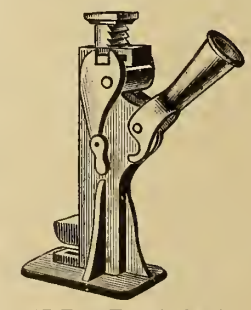


Sectional View

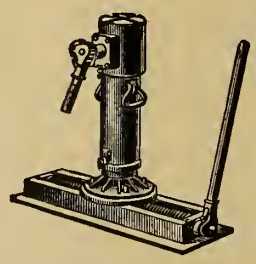


Foot Lift Jack

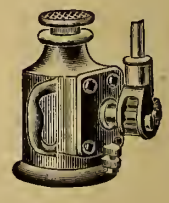
50 Styles 8 to 70 Tons Capacity
Carried in stock for IMMEDIATE DELIVERY



15 Ton Track Jack



Traversing Jack



Journal Jack

MANUFACTURED BY

A. O. NORTON, COATICOOK, QUE.

Stock Carried by W. H. C. MUSSEN & CO., MONTREAL

Railway Commissioners' Freight Orders.

The Board of Railway Commissioners has issued the following orders:

Meeting at Ottawa June 29. In the matter of the complaint of Davies, Limited, of Toronto, under the Railway Act, 1903, that the G.T.R. Co. and the C.P.R. Co. have advanced their rate from Toronto to Montreal on packing house products in carloads for export to 19c. per 100 lbs., including the terminal charges at Montreal, and applying for direction from the Board to the said companies to restore a rate of 16½c. per 100 lbs., including the said terminal charges. The complaint having come on for hearing at sittings of the Board held in Toronto on April 19, May 10, and May 11, 1906, in the presence of counsel for the complainants and for the G.T.R. and the C.P.R. companies, upon hearing what was alleged by counsel and upon consideration of the report of the Chief Traffic Officer of the Board, and the evidence adduced—

It is ordered that the G.T.R. and the C.P.R. companies be ordered to forthwith establish a maximum rate of 18c. per 100 lbs. from Toronto to Montreal, including the Montreal terminal charges, on the following commodities for export, viz.: Packing house products, comprising the articles classified 5th class under the heading of "cured meats" in the official classification; also lard, grease, and tallow, in boxes, barrels, tubs, or pails, in carloads of the minimum weight prevailing on the same commodities at the same time from Chicago; provided, however, that it shall not be compulsory on the said railway companies, or either of them, to reduce the said rate below 18c. per 100 lbs. as a consequence of any reduction that may be made, as the result of competition, below the normal rate of 30c. per 100 lbs. on packing house products in carloads from Chicago to New York.

It is further ordered that on the basis of the said 18c. rate from Toronto, the rates on packing house products in carloads from other packing points in Ontario to Montreal for export shall be as follows, and shall include the Montreal terminal charges, namely:

From	Peterboro	17c.	per 100 lbs.
"	Hamilton	18c.	" "
"	Brantford	18c.	" "
"	Aylmer	19c.	" "
"	Ingersoll	19c.	" "
"	London	19c.	" "
"	Stratford	19c.	" "
"	Petrolia	20½c.	" "
"	Palmerston	20½c.	" "
"	Harriston	20½c.	" "
"	Collingwood	20½c.	" "

FREIGHT ON RAILWAY TIES.

Meeting at Ottawa, Aug. 1, in the matter of the complaints of the Gillies Brothers, Ltd., lumber manufacturers, Braeside, Ont., and the Rideau Lumber Co., Ltd., of Ottawa, Ont., under the Railway Act, 1903, alleging that the railway companies, subject to the jurisdiction of the Board, have failed to comply with the intent and purpose of the order of the Board, dated July 30, 1904, with respect to the tolls to be charged on railway ties; whereas, by the order above referred to in the matter of the complaint of J. A. Scobell, the Kingston and Pembroke Ry. Co. was ordered to cease and desist from levying tolls on cedar and its products, such as lumber, ties, posts, telephone, telegraph, and trolley poles, in excess of tolls on other descriptions of timber and their like products, and to substitute tolls which would not discriminate between cedar and other woods; and whereas it was therein ordered that the tolls on cedar and other ties be not higher than the tolls on lumber, to be published in the company's special mileage tariff on lumber, etc., and that the tolls on cedar lumber, cedar posts, and cedar poles of all kinds be not made relatively higher than the tolls on other lumber, posts, and poles. Upon the report of the Chief Traffic Officer of the Board; and upon consideration of the complaints filed—

It is ordered that the said order of July 30, 1904, is hereby declared to be made applicable to all railway companies, subject to the provisions of the Railway Act, 1903. That the tolls to be charged on wooden ties of all description, not treated with preservatives, when shipped in carloads, shall not be higher than the tolls provided in the special tariffs of the companies to apply on common lumber; except that it shall not be obligatory on the companies to charge thereon such tolls as may be made necessary by the competition of carriers not subject to the Railway Act, 1903, as authorized in sec. 252, sub-sec. 3, and sec. 262, sub-sec. 4, of the Act, when such competitive tolls are lower than the lowest special tariff of tolls between the same points on common lumber issued under ordinary transportation and trade conditions; and that this order shall apply also from points in Canada to points in the United States between which joint rail rates on general traffic are, or may be, made by the Canadian railway companies with the concurrence of their United States connections, as well as between points in Canada.

C.P.R. SWITCHING TOLLS AT LONDON, ONT.

Meeting at Ottawa July 18 In the matter of the tolls to be charged at London, Ont., by the C.P.R. Co. for switching freight and live stock traffic, in carloads, from and to the connection of its railway with the G.T.R. Co.'s branch line, which was authorized to be constructed under the order of the Board dated July 6, 1904, and which is known as "the Belt Line." Whereas by order of the Board dated July 25, 1905, the G.T.R. Co. was, upon the application of the C.P.R. Co., directed to afford all reasonable and proper facilities for the interchange of freight and live stock traffic between the applicant company and the G.T.R. Co. over the Belt Line, and the rates to be charged and received by the G.T.R. for switching said freight and live stock traffic were fixed. And whereas it is proposed to fix the tolls the C.P.R. Co. shall be entitled to charge and receive for switching freight and live stock from and to its point of connection with the Belt Line Upon the report of the Chief Traffic Officer of the Board, it is ordered that the tolls to be charged by the C.P.R. Co. for switching freight and live stock traffic, in carloads, from and to the Belt Line as aforesaid, be as follows: To and from all tracks and sidings used for the purpose of loading or unloading cars, and owned or controlled by, or connecting with the line of, the C.P.R. Co., between the point of connection of the company's railway with the G.T.R. Co.'s Belt Line and the River Thames, excepting such sidings adjoining the C.P.R. Co.'s freight shed or sheds, as may be necessary for the convenient transfer thereto and therefrom of freight ordinarily handled by the company's employes, 16c. per ton of 2,000 lbs., but not less than $4 for each loaded or partially loaded car; no extra charge to be made for switching the empty car in the opposite direction; and that the provisions of this order do forthwith come into effect.

WALL PAPER RATES.

Meeting at Ottawa July 31. In the matter of the complaint of Staunton's Limited, of Toronto, under the Railway Act, 1903, alleging that the freight rates charged by the G.T.R. and the C.P.R. companies on wall paper shipped from Toronto to points in eastern Ontario and in the Provinces of Quebec, New Brunswick, and Nova Scotia, are excessive and discriminatory in comparison with the rates in effect upon similar merchandise carried in the opposite direction; and requesting that the Board disallow the present eastbound rates on complainants' goods, and restore those in effect prior to Nov. 15, 1905. This application having come on for hearing at a sitting of the Board held in Toronto on May 9, 1905, in the presence of counsel for the G.T.R. and the C.P.R. companies, J. R. Marlow appearing on behalf of the complainants. Upon hearing what was alleged by counsel and the evidence adduced; and upon the report of the Chief Traffic Officer of the Board; it is ordered that the G.T.R. and the C.P.R. companies reduce their tolls for the said eastbound traffic from Toronto to Montreal to those in the tariffs for similar westbound traffic between the same points; that the tolls to Montreal be not exceeded to Ottawa, nor to intermediate points; and that the tolls to points east of Montreal be reduced by the amount of the aforesaid reduction to Montreal. That the tariffs to be made under this order shall come into force not later than Sept. 10, 1906.

DISCRIMINATING RATES TO BRITISH COLUMBIA.

Meeting at Vancouver, B.C., Aug. 11, 1906. In the matter of the complaint of the Boards of Trade of Vancouver and New Westminster, B.C., and the Canadian Manufacturers' Association, that the C.P.R. Co. unjustly discriminates against the coast points of British Columbia in exacting higher rates and more onerous conditions with respect to freight traffic which originates in eastern Canada than with respect to similar traffic which originates in the U.S., and which is carried by U.S. railway companies, or by U.S. and Canadian railway companies jointly, to the same destinations in British Columbia. The said complaint having come before the Board for hearing at Vancouver on Aug. 29, 1904, and at another sitting held at the same place on Sept. 21, 1905, and subsequently at a sitting of the Board on March 9, 1906. Upon hearing the parties by their respective counsel and the evidence adduced, and upon reading the report of the Chief Traffic Officer of the Board; the Board orders that, with respect to the additional toll of 5c. per 100 lbs. charged to certain B.C. points on all classes of freight traffic which originates in the eastern States of the American Union, which is now added and charged also on freight which originates in eastern Canada and destined to the same B.C. points, the company shall henceforward, and until further ordered by the Board, cease and desist from charging the said additional toll on the said freight traffic which originates in eastern Canada. That, for the minimum carload weights as now charged for certain descriptions of freight for which shippers may require cars longer than the standard car of 36½ ft. in length, the company shall substitute the minimum weights prescribed in the Canadian Freight Classification as approved by the Board. That the same allowance shall be made for the weight of lumber, or other material, used for the purpose of bracing, blocking, racking, or otherwise safeguarding carload shipments of freight requiring such protection to points in B.C., as are similarly made to other points in the Dominion of Canada.

In connection with the foregoing order the Chief Traffic Officer of the Board has issued a statement to the press, summarizing the terms of the order and saying that the general result is a reduction to Canadian shippers. The statement continues: "As regards the complaint that the transcontinental rates from Eastern Canada should not exceed those from the Eastern States, the Board finds that for the distance hauled

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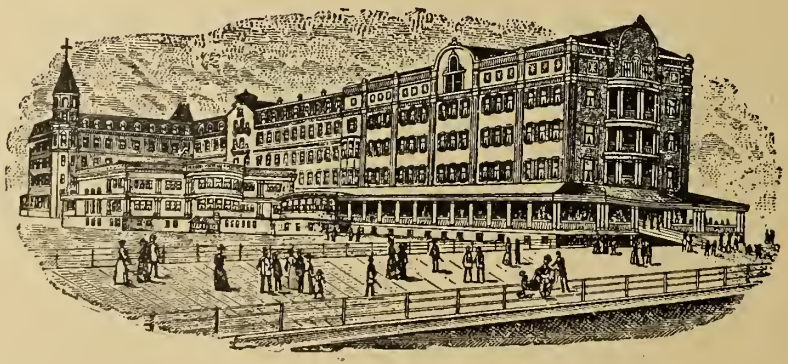

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and the character of the service performed, the domestic rates are in themselves reasonable; that the lower rates of the U.S. companies are due to the powerful competition of the Panama and Cape Horn routes, which competition does not exist from Eastern Canada; that by competing with the U.S. carriers for a portion of this traffic, the Canadian company enables itself to fill out its transcontinental trains and give the Canadian shipper a better service; and that the competition of the United States with the Canadian shipper will continue to exist whether the C.P.R. does, or does not, bid for a share of this foreign traffic for transportation through Canada. This portion of the claim has, therefore, been dismissed."

The Annual Financial Review for 1906, published by Houston's Standard Publications, 7-9 King St. East, Toronto, gives in a coneise and collective form the facts and figures connected with a large number of Canadian railways, navigation companies and industrial concerns, also miscellaneous companies in the United States and elsewhere, in which Canadian people hold large financial interests. The general information about the prices of various stocks on the Montreal and Toronto exchanges, together with the tables showing the fluctuations of the different shares during each month of the year, and the number of shares changing hands, shows that much time and trouble has been taken in the compilation of the volume. The publisher announces that owing to the majority of the Canadian incorporated companies now ending their financial year on Dec. 31, the next Annual will be issued on Mar. 1, and the Appendix in Oct.

The C.P.R. is arranging to plant 30 acres of land at Maple Creek, Man., with jack pine, for use as ties. This is to be done as an experiment, and if successful, areas of land will be set apart at different points for forestry purposes.

The Ingersoll Telephone Co. has been incorporated under the Ontario Companies' Act, with a capital of $50,000 and offices at Ingersoll, Ont., to carry on a general telephone business in Oxford county. The provisional directors are: C. Miller, O. E. Robinson, H. F. Boyce, T. R. Mayberry, A. J. Welch, E. H. Hughill, all of Ingersoll, Ont.

The battleship Dominion, in command of Captain Kingsmill, a native of Guelph, Ont., has been visiting Canadian waters. On her way into the Gulf of St. Lawrence, it is reported that she struck a rock, doing considerable injury. On reaching Quebec, inquiries were made as to the docking capabilities of the port, but it was stated that the vessel would be taken to England for repairs.

The decision of the Judicial Committee of the Privy Council, London, Eng., in the consolidated appeal of the Solicitor-General against Cain and Gilhula, officials of the Pere Marquette Rd., is to the effect that the Alien Labor Act is intra vires, and that the order to deport Trainmaster Cain and Chief Train Dispatcher Gilhula, as having been brought into Canada in violation of the terms of the act, was legal.

An order-in-council has been passed under the provision of sub-clause h, clause 90, of the Dominion Lands Act, directing that, in view of the possible construction at an early date of a railway having its terminus at Fort Churchill on Hudson Bay, the land on both sides of the Churchill River from the coastline to a distance of 10 miles up the river, and for two miles wide on each side of the river, shall be withdrawn from settlement. The land withdrawn from settlement is also to include all islands within three miles from the mouth of the river.

TRADE AND SUPPLY NOTES.

The matter which appears under this heading is compiled, in most cases, from information supplied by the manufacturers of, or dealers in, the articles referred to, and in publishing the same we accept no responsibility. At the same time we wish our readers to distinctly understand that we are not paid for the publication of any of this matter, and that we will not consider any proposition to insert reading matter in our columns for pay or its equivalent. Advertising contracts will not be taken with any condition that accepting them will oblige us to publish reading notices. In other words, our reading columns are not for sale, either to advertisers or others.

J. A. Dawson & Co., Montreal, have been appointed Canadian agents for the Couch & Seeley Co.'s intercommunicating and interior telephones, also for the Jackson wrench.

H. C. Philpott, for several years sales agent for the Canadian General Electric Co., and the Canada Foundry Co., has been appointed general sales agent for the Dominion Steel Car Co. and the Simplex Railway Appliance Co. of Canada, with headquarters in Montreal. For the present he will continue to reside in Toronto.

The Canadian Westinghouse Co., Hamilton, Ont., has issued circular 1132, respecting Westinghouse Protective Apparatus; 1133, dealing with Westinghouse Revolving Field Alternators; and 1135, describing the Westinghouse 12A Railway Motor. It has also issued an illustrated booklet treating of Electricity in Heavy Railway Service.

The McGregor Banwell Fence Co., Ltd., of Walkerville Ont., manufacturers of the Ideal Woven Wire Fence, are establishing a factory in Winnipeg to take care of their western railway and farm trade. Two acres directly opposite the C.P.R. shops have been purchased and a factory will be built and machinery installed, in time for next spring's trade.

In the Westinghouse Electric and Manufacturing Co.'s annual report issued recently, Vice-President Osborn says: "The single-phase system, which was made possible by the genius of our chief engineer, B. G. Lamme, was developed and made a complete success in the face of the incredulity of practically the entire engineering world. The system furnishes the only means to-day by which existing steam roads can be economically operated by electric power, and its general adoption, which is at hand, will open an enormous field for the products of our company. The system has for more than a year been in successful operation on a number of important interurban roads. It has been adopted after a careful study of all existing systems, by the New York, New Haven and Hartford Rd. for the operation of trains on its main line from New York City to Stamford, Conn. This contract is now in process of execution. Two other important railroads have placed contracts with us, namely: The Grand Trunk Ry. of Canada, for the electrification of the Sarnia tunnel, and the Spokane and Inland Ry., for the complete operation of its lines by this system."

A paper on large steam electric locomotives, read before the New York Railroad Club by J. E. Muhlfeld, General Superintendent of Motive Power, Baltimore and Ohio Rd., and formerly of the G.T.R. and Intercolonial Ry. services, has been reproduced in pamphlet form by the American Locomotive Co., with illustrations of the Mallet articulated compound no. 2400, and the electric locomotive no. 7-8, built for the Baltimore and Ohio Rd. The paper opens with a description of the electric locomotive illustrated, giving details of design, record of its performance since going into service in 1903 and statistics of the average cost of operation and maintenance per 100 miles run. Then follow several specifications of the requirements an electrical locomotive and its source of power should fulfil to produce efficiency and economy in railroad service. The next few pages are taken up with a description of the Mallet articulated compound, giving special features of design, and comparing it as to total weight, tractive power and hauling capacity with two consolidation locomotives which together were formerly required to do the work now done by the Mallet. Then follows a record of the performance of this locomotive—from Jan., 1905, to Jan., 1906—and a report as to the general condition of the machinery and boiler at the end of this time. Mr. Muhlfeld goes on to mention some of the results obtained from this type of steam locomotive, which it is claimed cannot be duplicated by other single units of steam, electric or internal combustion locomotives in use on American railways to-day, and gives a short resume of the requirements modern railway motive power must fulfil. Following this is a statement of equipment necessitated by the use of electricity for motive power and that required where the steam locomotive is used, and a summary of the general features for a modern locomotive. In the last pages the possibilities for electrification which some mountainous steam railways present, are pointed out, followed by a general discussion of the subject of steam versus electricity for motive power. Mr. Muhlfeld compares the electric and steam locomotive from the standpoints of efficient and economical operation and maintenance, pointing out the necessity of reducing the initial cost of electrification by increasing the efficiency and economy of present types of stationary boiler and by improvements in the means of generating, distributing, converting and transmitting electrical current. In conclusion he says that it is only by the harmonious co-operation of the electrical and mechanical engineer attacking the problem from the transportation and motive power standpoints that the present and future motive power requirements can be met. The rest of the pamphlet is taken up with discussions of Mr. Muhlfeld's paper by H. H. Vaughan, Assistant to the Vice-President C.P.R., and others, closing with a summing up by Mr. Muhlfeld.

The Great Northern Railway (U.S.A.) in Canada.

By J. A. Macdonald, C.E.

J. J. Hill's invasion of Canada is now an assured fact. Western Canada, from Manitoba to the coast, hails his advent with the greatest enthusiasm. The West wants all the railway competition possible, and cares not whence it comes. What further accentuates Mr. Hill's welcome in the West is the large number of his old neighbors from Dakota, Montana and Minnesota, who are now settled and settling there. But if the West hails the invasion of Mr. Hill with such evident delight, Old Canada does not nor do the Canadian railways. Their cry is, "Canada for the Canadians."

Had Canada and the United States been under one flag since 1776, it is safe to say the main lines of Canadian railways would have been built from north to south rather than from east to west. Starting at British Columbia, we should have had roads running, not diagonally across the mountains, but down the valleys into Washington, Oregon, California, Idaho and Montana. The wheat of the Northwest would have been carried to Minneapolis and Duluth and the north shore of Lake Superior given a wide berth. It would not have been necessary to bring the Intercolonial to Levis or Montreal. Montreal and Quebec would have been the summer ports, but in winter the provinces of Quebec and Ontario would have used Portland, Boston and New York, nearer to them than St. John or Halifax. This would in all probability have been the state of things now existing had we been United

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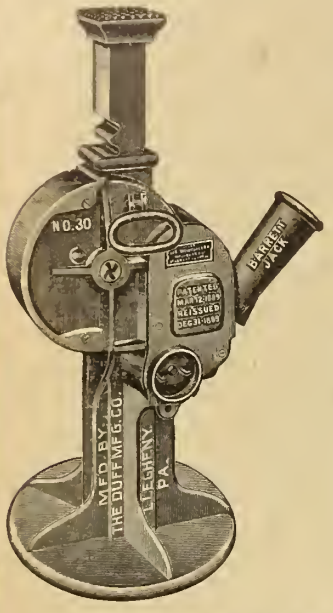

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I. A. YOUNG,
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States subjects. As we are not U.S. but British subjects, ambitious to build up a British nation on this continent, our policy has hitherto been to confine Canadian traffic as far as possible within Canadian channels, just as, since 1879, we have endeavored to do our own manufacturing. There was no other way by which we could hope to solidify the country.

The Intercolonial, which has cost $80,000,000, was the first railroad built from east to west to serve this great political object. The Grand Trunk united Upper and Lower Canada, but in a commercial rather than a political sense. Then came the Canadian Pacific, built primarily to connect the Northwest and British Columbia with Old Canada. Though its eastern division traverses Maine, it does so in the interests of St. John and Halifax. As a Canadian line, it was obliged to build along the north shore of Lake Superior, a more or less hopeless wilderness 600 miles wide, and to face the enormously expensive work involved in crossing at right angles the mountain ranges of British Columbia. The Canadian Northern, a commercial and, as yet, local railway, has been built from east to west within Canadian territory in order that its traffic may be handled by Canadian lake and ocean ports. The Grand Trunk Pacific is to run in the same direction and on Canadian soil all the way from Moncton to the Pacific, for the same purpose. The cost of these four roads, counting public and private expenditure, will approach $500,000,000.

With the same determination to make herself independent of the United States, Canada has built canals between Montreal and Sault Ste. Marie at a cost of $100,000,000. There were some who argued that, instead of going to so much expense, she should use the Erie, Oswego and Champlain canals to reach New York with her products, but they were promptly overruled. In addition Canada has spent many millions of public and private capital in dredging channels, improving harbors and building elevators, docks and ocean steamships in the belief that Canadian traffic, including that of the West, would be preserved for Canadian ports. When Mr. Blake and Sir David Macpherson suggested that the Canadian Pacific should commence opposite Pembina, N.D., on the U.S. boundary south of Winnipeg, and going up to Winnipeg and Selkirk, cross the prairies and mountains to the Pacific ocean, its eastbound freight being turned over to the U.S. lines at Pembina, they found few sympathizers. Liberals as well as Conservatives in Old Canada asked, "Why should we tax ourselves for so great an enterprise if the U.S. people are to be the principal beneficiaries—if Montreal and Quebec, Halifax and St. John are to be cut out of the export and import traffic?"

Canada's policy in these vital matters is apparently about to be reversed. Some time ago, with Mr. J. P. Morgan's assistance, J. J. Hill consolidated the Northern Pacific with his own road, the Great Northern. They are still separate corporations in name but are both under his immediate control. At present he taps Canadian territory between the Red River and New Westminster at a dozen different points, nine or ten other branches run to within a few miles of the boundary, and he is building a main line through British Columbia, which is to be extended eastward, he says, to Winnipeg. All these roads are or will be feeders of the Northern Pacific and Great Northern, and all the Canadian traffic they bring down will be carried to U.S. ports. When Mr. Hill has fully executed his plans, the Northwest and British Columbia will be much more closely attached to the U.S. than to Old Canada, so far as railway communication is concerned.

Mr. Hill is a veteran campaigner. He knows how to appeal to human nature. His promise to spend $30,000,000 on his road from Fernie to Winnipeg, $25,000,000 on the Vancouver, Victoria & Eastern, and an indefinite sum on his new spurs in Manitoba, has, of course, aroused much enthusiasm in Manitoba and British Columbia. His announcement that Canadian hard wheat is about to be admitted free into the U.S. is another happy stroke of the same kind. If Mr. Hill is to be believed, one purpose of his in thus entering Canadian territory is to feed the Canadian Pacific and Grand Trunk Pacific. However, by carrying their traffic for shipment to U.S. lake and ocean ports, he will seriously impoverish the Canadian roads, besides doing great damage to Fort William, Midland, Depot Harbor, Owen Sound, Montreal, Quebec, St. John and Halifax.

Taking the Northern Pacific and Great Northern together Mr. Hill now has lines reaching the Canadian boundary, or to within a short distance of it, at the following points: 1. From the Great Northern main line to Greenbush, near Warroad, on the Canadian Northern, at the south end of Lake of the Woods. 2. From the Northern Pacific to Pembina; two spurs from the Great Northern to Emerson and Gretna, further west. 3. From the Great Northern to Wallhalla, Hannah, Hansboro, Thorne, Sarles, St. John, Bottineau and Sherwood, all separate spurs. 4. From the Great Northern to the boundary at Sweet Grass (Coutts) and thence to Lethbridge. 5. From the Great Northern, separate spurs to Fernie, Kootenay Landing by way of Creston, Nelson, Kaslo and Sandon, Rossland, Grand Forks and Midland. 6. A Northern Pacific line from Mission Junction, B.C., to Seattle and Portland, together with a Great Northern line from New Westminster and Vancouver to the terminus of the main line at Seattle. In other words, Mr. Hill has already tapped Canadian territory at 12 or 13 different points, and is within striking distance of the boundary at nine more.

His entrance into Canada is of vital moment not only to the Canadian transcontinental railroads, but to Canadian lake and ocean ports as well. Canada has sunk a vast amount of public money in all three, and private capital has sunk more. Canadian ocean ports, Montreal and Quebec, St. John and Halifax, have been handicapped in various ways from the beginning. The navigation laws, whereby none but British bottoms were allowed to participate in the colonial trade, were the cause of excessively high outward ocean rates from Quebec down to their repeal 60 years ago, with the result that a great deal of the produce of Upper Canada destined for Europe was sent by way of the Erie Canal to New York. Nature is somewhat unkind. For five months of the year the St. Lawrence is icebound, and business has to be transferred to St. John and Halifax. Such a break in the continuity of trade is, of course, a very serious matter for Montreal and Quebec. Halifax and St. John are excellent winter ports, but geography is against them, since the Ontario exporter and importer finds it cheaper to use Portland, Boston, and New York, which are considerably nearer. Marine insurance favors the U.S. and discriminates against Canadian ports, more especially in the fall, when export grain is going out. The Welland and St. Lawrence canals, on which $100,000,000 has been spent, are not deep enough to accommodate the modern type of steam vessel employed on the upper lakes, the result being that a considerable percentage of wheat grown in the Canadian Northwest, and the great bulk of that grown in the Northwestern States, reaches the Atlantic by way of Buffalo and New York or by other U.S. routes, and is lost to Montreal. Ocean traffic at Montreal is crippled to some extent by inadequate harbor accommodation as well as by the danger involved in taking the larger vessels up the St. Lawrence. This will be improved with the deepening and widening of the channel; meanwhile the port of Montreal is suffering from those drawbacks and must for some time yet continue to suffer. Great sums are and have been spent by the U.S. Government in improving the harbors of New York, Boston, Portland, Baltimore, Newport News, Philadelphia, etc. As the efficiency of those seaports increases, they become more and more formidable competitors of Canadian summer and winter ports.

In giving J. J. Hill the free run of the Northwest and British Columbia, thereby enabling him to carry their traffic south, Canadian ports will be dealt a hard blow. When the Government chartered the Grand Trunk Pacific, it did what it could to prevent the diversion of traffic to Portland. But what will that avail if traffic is to be switched south to the U.S. seaboard at the points of origin? The question is one of momentous importance to eastern Canada and its ports. They believe they have a better right to handle Canadian traffic than Mr. Hill's railways, than Duluth and Buffalo, New York and Boston. In taking this ground eastern Canada cannot be accused by the U.S. of narrowness of spirit. Its wish is simply to retain Canadian business in Canadian channels, on which a vast amount of money, public and private, has been spent; just as the U.S. people keep their home market to themselves by means of a high tariff wall, and their coasting trade to themselves by prohibiting Canadian vessels from trafficking between one U.S. port and another.—Railroad Gazette.

The writer of this article is not quite correct in his reference to the Canadian Northern, which he speaks of as having been built from east to west within Canadian territory. As a matter of fact, the main line of the Canadian Northern passes through northern Minnesota, U.S.A., between the Rainy River, Ont., the International boundary between Ontario and the U.S. and the International boundary in southeastern Manitoba.—Editor.

Grand Trunk Rolling Stock Additions.

A statement has been issued by the G.T.R. management giving particulars of the rolling stock added to its equipment for the year ended June 30 last, as follows:

Three parlor cars built at Montreal shops and turned out for service in June, 1906: 81 ft. long over the buffers, 10 ft. 1 in. wide and 14 ft. 6 in. from the rail at their highest point, weight about 116,300 lbs. Equipped with steel platforms, wide vestibules, high speed brakes and double windows, and heated with steam from the locomotive. Interior finished in mahogany, and lighted with Pintsch gas and electric light. Body of the car has seating accommodation for 29, with seats upholstered in green plush, and the smoking room, which is upholstered in leather, will accommodate seven. The cars are also fitted with a buffet. The floor of the buffet, smoking room and passages is covered with rubber tiling, and the remainder of the car is carpeted.

Three first-class cars built at Montreal shops and turned out for service in June, 1906: 75 ft. 5 in. long over the buffers, 10 ft. 1 in. wide and 14 ft. 6 ins. from the rail at their highest point, weight about 106,900 lbs. Equipped with steel platforms, wide vestibules, double windows and high speed brakes, and heated with steam from the locomotive. Interior finished in mahogany and lighted with Pintsch gas. Body of the car upholstered in green plush and has seating accommodation for 60, while the smok-

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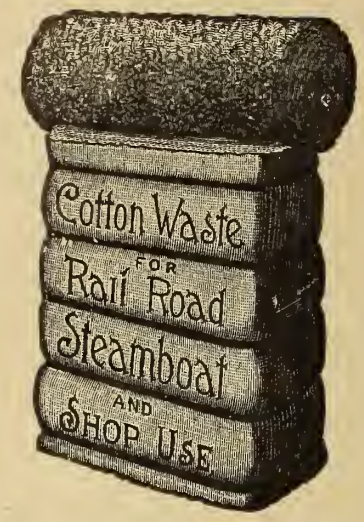

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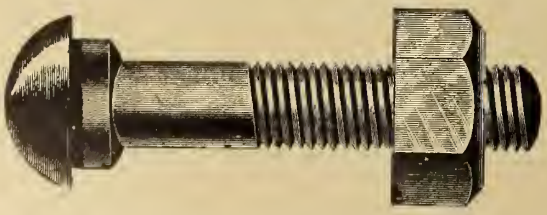

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REGINA, SASK. CALGARY, ALTA.
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ing room, upholstered in leather, will accommodate 12. The floor of the smoking room is covered with linoleum, and the aisle of the body of the car with carpet.

Nine baggage cars built at Montreal shops. The first four were turned out for service in Oct., 1905, and the remaining five in April, 1906. They are all 62 ft. 10 ins. long over the buffers, 10 ft. 2 ins. wide and 14 ft. 7½ ins. high, weight about 71,000 lbs. They are equipped with wide steel buffers and high speed brakes, and are heated with steam from the locomotive and lighted with Pintsch gas.

Box cars—The first 1,000 of these were built by the Canada Car Co. and turned out for service from Nov., 1905, to April, 1906, and the remaining 201 by Rhodes, Curry & Co., of Amherst, N.S., and were turned out for service in May and June, 1906. They are all about 36 ft. 10 ins. in length over the end sills, and are 30 tons capacity. They are equipped with side and end ladders, Westinghouse brakes, metal trucks, and automatic couplers, and are intended for heavy grain traffic.

Eight cabooses built at Port Huron shops and completed for service in Nov., 1905, 34 ft. 1 in. over the platforms, with an extreme width of 10 ft. 0½ in. and 15 ft. 6½ ins. from the rail at the highest point of the cupola. Fitted with Westinghouse air brakes and automatic couplers, also with cupboards, wardrobe, washstands, stove, etc.

During this period the G.T.R. also added to its stock 15 Richmond compound mogul engines, 22½ and 35 in. x 26 in. x 63 in., built by the Canadian Locomotive Co. They are the standard freight type, weighing 140,744 lbs. on the driving wheels, a total weight of 163,704 lbs., the total weight of the engine and tender being 307,000 lbs. Capacity of tender 7,000 gals., 10 tons coal. Pressure, 200 lbs. Total heating surface, 1,991 sq. ft. Grate area 33.43 sq. ft. This order was for 25 locomotives, and the balance, 10, were built and furnished by the Locomotive and Machine Co. of Montreal, before the end of June, 1905. These Richmond compounds are practically the same as the 20 x 26 simple mogul engines, except that they have the compound feature. The tests made show a saving of from 15 to 25% in fuel, without any increase in the cost of repairs. These results have led the road to perpetuate the type.

The new 19 x 26 10-wheelers were delivered in July, with the exception of a couple, which came to hand the latter part of June, but were not added to the stock until after July 1.

The first of the new consolidation engines has been delivered. This locomotive will be weighed carefully on all its wheels. It and the new 10-wheeler are somewhat different from the other types, and their work will be very carefully watched.

The capital of the Canadian Transfer Co. has been increased from $100,000 to $500,000, by supplementary letters patent issued under the Dominion Companies' Act.

C. A. Dewey, Division Freight Agent, G.T.R., Toronto, in company with a number of other railway men, was caught in an elevator in the Birge building, Buffalo, N.Y., Aug. 30, and was imprisoned for about an hour. After a portion of the wall had been cut away, the occupants were given an opportunity to leave the elevator by means of a stepladder. Mr. Dewey first made the attempt, and while he was in the act of getting out the elevator moved upwards. He was promptly pulled inside, but had a narrow escape from being crushed. The elevator was stopped at the second floor and the imprisoned officials were released.

TRANSPORTATION APPOINTMENTS.

Boston and Maine Rd.—A general circular says: D. W. Sanborn, General Superintendent, who has for nearly half a century faithfully discharged every duty committed to his care, and who has during that period risen by promotion through the different grades of employment to his present position is, at his own request, retired from active service.

C. E. Lee is advanced from the position of Assistant General Manager to that of General Superintendent, the office of Assistant General Manager being for the present discontinued.

D. J. Flanders, General Passenger Agent, is promoted to the position of Passenger Traffic Manager, and as his health is temporarily impaired, he is given leave of absence until his recovery.

C. M. Burt, formerly Assistant General Passenger Agent, resumes his connection with the company as General Passenger Agent..

Messrs. Lee and Burt will have their offices at the Union Station at Boston, Mass.

Canadian Northern Ontario Ry.—F. M. Spaidal, heretofore Superintendent district 2, Eastern Division, and Montreal Terminals, C.P.R., has been appointed Superintendent C.N.O. Ry. (James Bay Ry.). Office, Toronto.

Canadian Pacific Ry.—C. H. Bowes, heretofore Chief Clerk to the General Passenger Agent of the Bangor and Aroostook Ry. at Bangor, Me., has been appointed Travelling Passenger Agent C.P.R., St. John, N.B., vice J. McKenna, transferred to Montreal.

J. G. Burke, of the District Passenger Agent's office, St. John, N.B., has been appointed Travelling Passenger Agent there, succeeding M. G. Murphy, appointed chief clerk to the District Passenger Agent.

G. A. Ringland, heretofore connected with the general passenger staff, Atlantic Steamships, has resigned to open a steamship ticket agency at Winnipeg, Man.

J. Vaughan, heretofore Assistant Superintendent, Montreal Terminals, has been appointed Superintendent district 2, Eastern Division, succeeding F. M Spaidal, resigned to enter the Canadian Northern Ontario Ry. service. Office, Montreal.

R. W. McCormick, heretofore Trainmaster district 4, Ottawa, has been appointed Assistant Superintendent district 2, Eastern Division, with special jurisdiction over Smith's Falls section. Office, Smith's Falls, Ont.

The following changes in trainmasters have been made on the Eastern Division: J. H. Boyle, heretofore of district 1, Farnham, Que., transferred to district 3, at Montreal; being succeeded by W. A. Rose, heretofore of district 3, Montreal; D. Robertson, heretofore of district 2, Smith's Falls, Ont., transferred to district 4, Ottawa, succeeding R. W. McCormick, promoted. The position of Trainmaster district 2, Smith's Falls, will not be filled for the present, an Assistant Superintendent having been appointed there.

The following changes in storekeepers have been made: R. E. Hall, transferred from Carleton Jct., Ont., to Farnham, Que.; D. Thompson, transferred from Toronto Jct. to Carleton Jct.; H. Brook, transferred from Farnham to Toronto Jct.

H. E. Kelly, chief train dispatcher district 1, Toronto, having been granted leave of absence owing to illness, W. A. Killingsworth, night chief train dispatcher, is acting as chief train dispatcher, and R. R. Jelly is acting as night chief train dispatcher.

J. G. Taylor, heretofore Assistant Superintendent district 3, Central Division, at Brandon, has been appointed Assistant Superintendent district 1, at Fort William, Ont., with charge of the terminals at the lake front, reporting to the Superintendent at Kenora, Ont.

R. E. Larmour, heretofore city freight agent Winnipeg, Man., has been appointed freight agent, Fort William, Ont., succeeding H. G. Coram, transferred.

The work of directing the grain trains to the various elevators at Fort William, Ont., has in past years been done by the yard checkers generally, but for the present season one of the yard checkers has been made directly responsible for it. This is the foundation for the daily press reports that the C.P.R. had appointed a distributing agent at that point.

Pending completion of the double tracking of district 1, Central Division, the offices of the Superintendent, Trainmaster and the train dispatchers will be at Kenora, Ont. The position of Assistant Superintendent at Kenora has been abolished.

A. Belbeck, heretofore Assistant Superintendent district 4, Moose Jaw, Sask., has been appointed Superintendent Winnipeg terminals, succeeding G. E. Graham, transferred.

H. G. Coram, heretofore freight agent, Fort William, Ont., has been appointed city freight agent, Winnipeg, Man., succeeding R. E. Larmour, transferred.

G. E. Graham, heretofore Superintendent Winnipeg terminals, has been appointed Assistant Superintendent district 3, Central Division, Brandon, Man., succeeding J. G. Taylor, transferred.

C. S. Maharg, heretofore Assistant Superintendent district 1, Central Division, Kenora, Ont., has been appointed Assistant Superintendent district 4, Central Division, at Moose Jaw, succeeding A. Belbeck, transferred.

Grand Trunk Ry.—The following agents have been appointed: Morrisburg, Ont., Miss A. E. Loucks (Acting); Marshville, Ont., H. C. Cotter; Alma, Ont., C. H. Smith; Allenford, Ont., C. W McNiven.

Great Northern Ry. (U.S.)—F. M. Fryburg, heretofore Division Master Mechanic at Great Falls, Mont., has been appointed General Master Mechanic, Central Division, Minot, N.D., succeeding R. D. Hawkins, assigned to other duties.

W. W. Breckenridge, Master Mechanic at Cookston, Minn., has been appointed Master Mechanic at Great Falls, Mont., succeeding F. M. Fryburg, promoted.

Lehigh Valley Rd.—W. P. White, heretofore in the C.P.R. Assistant Foreign Freight Agent's office, Toronto, has been appointed soliciting freight agent Lehigh Valley Rd., with headquarters at Toronto.

Michigan Central Rd.—L. G. Parish, heretofore Assistant Superintendent Motive Power, Lake Shore and Michigan Southern Rd., has been appointed Superintendent of Motive Power, M.C. Rd., succeeding E. D. Bronner, resigned.

D. R. MacBain, heretofore Master Mechanic Jackson, Mich., and formerly at St. Thomas, Ont., has been appointed Assistant Superintendent of Motive Power, a new office, with headquarters at Jackson.

New York Central Lines.—C. H. Chevee, heretofore travelling passenger agent, Lake Shore and Michigan Southern Rd., has been appointed General Eastern Passenger Agent, Michigan Central Rd. and Lake Shore and Michigan Southern Rd. Office, Buffalo, N.Y.

Quebec, Montreal and Southern Ry.—C. B. Hibbard, heretofore General Manager Quebec Southern Ry. and South Shore Ry., has been appointed General Manager Q., M. and S. Ry., Montreal. This is the title of the new company organized by the Delaware and Hudson Rd. to operate the lines. The Receivership—G. C. Dessaulles, Receiver—which has had charge of the lines for the past two years will be wound up and discharged.

Reid Newfoundland Co.—W. S. March has been appointed Travelling Passenger Agent for the Company's Railway and Steamship System.

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MAINLY ABOUT PEOPLE.

B. J. Coghlin, of B. J. Coghlin & Co., railway supplies, Montreal, is in Ireland on a holiday trip.

D. D. Mann, Vice-President Canadian Northern Ry., is building a large house at Scarboro Cliff Park, Toronto.

F. Struthers, of the C.P.R. dispatching staff, Fort William, Ont., was married Aug. 9, at Winnipeg, Man., to Miss Winters.

Sir Wm. C. Van Horne, Chairman of the Board, C.P.R., paid a visit to Winnipeg and some other Manitoba points early in Aug.

I. G. Ogden, Third Vice-President C.P.R., slipped at the Anglers' Club, Rideau Lakes, Ont., recently and fell, breaking an ankle.

Sir C. Rivers Wilson, President G.T.R., and Lady Wilson, sailed from New York for Great Britain, by the S.S. Campania, Aug. 18.

Mrs. Fitzhugh, wife of the Third Vice-President of the G.T.R., spent a portion of the summer at Robinson Crusoe Island, Muskoka, Ont.

Mrs. Eaton, wife of G. H. Eaton, Assistant Master Car Builder, C.P.R. Western Lines, Winnipeg, Man., died there recently, and was buried at Toronto.

Hon. H. R. Emmerson, Minister of Railways and Canals, has purchased a house on Frank St., Ottawa, and was expected to take possession Sept. 1.

Miss Lillian Salsbury, daughter of the Local Treasurer of the C.P.R. at Vancouver, B.C., was married there recently to H. G. S. Heisterman, Victoria, B.C.

H. Waters, private secretary to W. Whyte, Second Vice-President C.P.R., was killed in a collision between C.P.R. excursion trains at Clandeboye, Man., Aug. 20.

C. F. Sise, President of the Bell Telephone Co., Mrs. and Miss Sise, have been spending some time in Europe, and are expected to return to Montreal early in Sept.

W. Whyte, Second Vice-President C.P.R., had an attack of pneumonia at Vancouver, B.C., but was sufficiently recovered to be able to return to Winnipeg, Aug. 23.

W. T. Robson, of the C.P.R. Advertising Department, delivered an address recently at the convention of Canadian Municipalities at Halifax, N.S., on municipal advertising.

Jas. McGurn, G.T.R. agent at River Beaudette, Ont., accidentally stepped in front of a train at the station, Aug. 3, and besides having his left leg broken, received internal injuries.

Jas. Ross, Montreal, has resigned from the directorate of the Mexican Light, Heat and Power Co., and has been succeeded as President by Sir G. A. Drummond, and as a director by C. H. Cahan.

Many happy returns of the day to D. W. Hatch, Travelling Agent, Atchison, Topeka and Santa Fe Ry., Montreal, born at Bedford, Que., Sept. 1, 1841.

C. B. Robinson, Toronto, has been appointed private secretary to the Minister of Railways and Canals, in succession to J. L. Payne, who has been given charge of the statistical branch of the Department.

J. Oborne, General Superintendent C.P.R. Eastern Division, Montreal, accompanied by Mrs. Oborne and family, sailed from Quebec, Aug. 25, by the Empress of Britain, for a two months' trip to Great Britain and France.

H. J. Beemer, formerly connected with the Ottawa, Northern and Western Ry., the Pontiac Pacific Ry., and the Interprovincial Bridge, Ottawa, has returned to Mexico, where he is engaged in mining enterprises, after a short visit to Canada.

C. B. Smith, Chairman and Consulting Engineer, Temiskaming and Northern Ontario Ry. Commission, Toronto, has been engaged to oversee the construction of the Winnipeg city power development plant at Winnipeg River at $5,000 a year.

J. G. McCrae, who died recently at Sarnia, Ont., was in early life a telegraph operator, and was engaged in the G.T.R. dispatcher's office during the time of the operation of the car ferry to Point Edward. T. A. Edison, the inventor, was a learner in the office under Mr. McCrae for a short time.

Notice has been given that A. B. Morine, of the Nova Scotia bar, and recently practising in Newfoundland, where he was counsel for the Reid Newfoundland Co. in a number of matters, will be presented for the purpose of being called to the Ontario bar, at the next term, under the rules applying in special cases.

J. Hague, for many years engaged as a financial writer in Toronto and Montreal, died in Montreal, Aug. 20, aged 77. In 1872 he was appointed Secretary of the Interoceanic Ry. Co., which was incorporated to construct a railway from Lake Nipissing to the Pacific Ocean, but which never did any construction work.

BRENTON A. MACNAB.

W. Imrie, of Ismie, Imrie & Co., Liverpool, Eng., one of the founders of the White Star Line, who died Aug. 7, left his entire fortune of £300,000 to charity, the different institutions to receive the money on the death of Mrs. Imrie. One-third of the estate will go to the Liverpool Seamen's Orphanage and the Home for Aged Mariners.

The Judicial Committee of the Privy Council, London, Eng., has given judgment in favor of Jas. Dunsmuir, of Victoria, B.C., formerly President of the Esquimalt and Nanaimo Ry., in the suit brought by Edna Wallace Hopper to upset the will of the late Alex. Dunsmuir. The plaintiff in the action is a daughter of the widow of Alex. Dunsmuir.

The estate of the late W. Hendrie, of Hamilton, Ont., was valued for probate at $2,300,000, of which $1,963,727.50 was in stocks and bonds. Among these were: Mackay Companies, $362,187.50; C.P.R., $159,750; Niagara Falls Park and River Ry. bonds, $100,000; Toronto, Grey and Bruce Ry. bonds, $78,947; St. Lawrence and Chicago Navigation Co., $48,812; Toronto Ferry Co., $48,000; Niagara Navigation Co., $29,591; Northern Navigation Co., $19,500.

Brenton A. Macnab, Managing Editor of The Montreal Star, at one time served in the ranks of railway workers. His duties as telegrapher were performed on the Intercolonial Ry. and the New Brunswick Ry., and in the employ of the Western Union and Great North-Western Telegraph Companies. About 18 years ago he became connected with The Star's telegraph department, and gradually worked his way to the head of the editorial department. Rumors have been in circulation more than once that Mr. Macnab might re-enter the railway field, but, so far, nothing in that direction has taken place.

Frederick Passmore Gutelius, Assistant Chief Engineer C.P.R., whose portrait appears on the first page of this issue, was born at Mifflinburg, Pa., Dec. 21, 1864. Graduated from Lafayette College as civil engineer 1887. Entered railway service 1888, since which he has been consecutively to 1892 assistant engineer and assistant supervisor Pennsylvania Co., at Pittsburg, Pa.; 1885 to 1898 General Superintendent Columbia and Western Ry.; 1898 to 1900 Superintendent C.P.R., at Nelson, B.C.; 1900 to 1902 various positions in engineering department same line; 1902 to March, 1906, Engineer Maintenance of Way same line.

F. M. Spaidal, who has been appointed Superintendent Canadian Northern Ontario Ry. (James Bay Ry.), at Toronto, was born at Gananoque, Ont., Nov. 13, 1858, and entered transportation service 1876, since which his record has been: Mar., 1876, to June, 1883, operator, agent and dispatcher G.T.R. at various points between Kingston and Montreal; June, 1883, to June, 1885, agent and dispatcher Union Pacific Rd. at Butte, Mont., and other points; Aug., 1885, to Dec., 1885, operator C.P.R., Ottawa; Dec., 1885, to June, 1893, dispatcher C.P.R. Ottawa; June, 1893, to Sept., 1897, Chief Dispatcher C.P.R., Ottawa; Sept., 1897, to Oct., 1903, Trainmaster C.P.R., Ottawa; Oct., 1903, to Aug., 1906, Superintendent district 2, Eastern Division, and Montreal terminals, C.P.R., Montreal.

C.P.R. Steam Motor Car.

In our last issue we gave a partial description of a motor car which the C.P.R. has added to its passenger rolling stock. The description was confined principally to the motive power, and we are now enabled to give a description of the passenger compartments. There are two of these, one with seating capacity for 16 for smokers, and the other with seating capacity for 40 for non-smokers. The car frame and body generally is of the same general construction as C.P.R. passenger cars, it being considered unwise to construct any car for passenger service which did not have the maximum strength of frame and ends to withstand collision shocks, weight being made a secondary consideration and safety the primary. The interior is finished in mahogany and in design similar to the C.P.R. standard. The seats are the wheeler type covered with rattan; both compartments are provided with continuous parcel racks of neat design, and also well-appointed toilets. Between the smoking compartment and the engine room is a 7 ft. 6 in. baggage room with a 3 ft. 3 in. door on each side for receiving and discharging baggage. Straight steam is used for heating, and acetylene gas for lighting purposes. The whole interior presents a very attractive appearance. At the passage end is a wide platform with four tread steps, and at the opposite end a specially constructed cow catcher or pilot. The exterior is finished in mahogany to C.P.R. standard lines, with bevelled plate in upper sashes. Full dimensions and specifications are given on pg. 515.

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Business Atlas for 1906.

The Business Atlas, published by Rand, McNally & Co., Chicago, Ill., has been given a new appearance for the 1906 edition. The cover is a dark green cloth, with the index to the maps embossed in white. The maps themselves have been re-engraved, brought up-to-date, and are printed in colors, while the index to each map has been rearranged and enlarged, a good deal of valuable information having been added. One feature is an alphabetical list of the railways doing business in the U.S., Canada, Mexico, Cuba, Porto Rico and Hawaii; the electric lines in the U.S. and Canada, and the principal steamship lines. The new maps are more clear and distinct than those in former editions of the work, and reference is thereby rendered much more easy. The Canadian maps of the Atlas show a marked advance upon those in previous editions and include a general map showing the whole of the Dominion, with the islands in the Arctic Ocean; a general map of Western Canada; maps of British Columbia, Alberta and Saskatchewan, Manitoba, Ontario, Toronto city; Quebec, Montreal city; and the Maritime Provinces. In the map of Western Canada, the various projected routes of the G.T. Pacific Ry., and of the extensions of the Canadian Northern Ry. to the Pacific coast are shown; while on the map of Manitoba the C.P.R. projected cut-off from Molson to Winnipeg is shown as completed; in Ontario the heavy marking of the county divisions makes the county boundaries the chief feature of the map, dwarfing all other matters, while the maps of the cities of Montreal and Toronto have not been corrected up-to-date, Montreal not having shown on it the Canadian Northern Ry. station, and the Toronto map shows as the site of the old Parliament buildings what has been for the past two years the site of the G.T.R. freight yards. In several of the other maps some projected lines have been marked whilst others are not shown. The elimination of projected lines from the maps, would be an advantage. Map making is a difficult undertaking, even under the most favorable circumstances, but when the development taking place in Canada and the United States is considered, the maps contained in the Business Atlas cannot be spoken of in any other than the highest terms.

RAILWAY DEVELOPMENT.

Projected Lines, Surveys, Construction, Betterments, Etc.

Atlantic, Quebec and Western Ry.—We have been advised that grading has been completed for 13 miles on the first 20 miles of the shore line from Paspebiac, Que., easterly, and it is expected to complete this 20 miles this year. Track has been laid for 1¾ miles easterly, and it is expected to lay about 15 or 20 miles of track this year. With the completion of this 20 miles, rail connection will be given to Port Daniel. (Aug., pg. 449.)

Atlin, White Horse and Dawson Ry.—United States press reports state that construction is going on upon this railway, and that several cargoes of steel rails have been delivered.

Canadian-Minnesota Bridge Co.—Application has been made to the Canadian Government and to the United States War Department for the necessary authority to construct a bridge across the Rainy River, at or near Fort Frances, Ont. The exact point suggested is Pither's Point, on Rainy River. The bridge will be used, when completed, by the Canadian Northern Ry., and the Duluth, Rainy Lake and Winnipeg Ry. (Aug., pg. 451.)

The Duluth, Rainy Lake and Winnipeg Ry. is now operating 44 miles of line from Virginia to a point 16 miles northerly from Ashawa, Minn., the mileage beyond Ashawa being put in operation July 1. It has under construction an additional 72 miles of line to the Rainy River, opposite Fort Frances, Ont. The line secured for the extension is a very satisfactory one, the gradients averaging 0.6% and the curvature 3°, with a tangent of 8 miles south of Rat Lake, and one of 10 miles north of Rat Lake. The headquarters of construction on Rainy River are near Pither's Point, where the river is to be crossed by a bridge in which the Canadian Northern Ry. and representatives of the D.R.L. and W. Ry. are interested. (May, pg. 253.)

W. H. Cook, President, and a party of sub-contractors, went over the Canadian Northern Ry. to Fort Frances, Ont., Aug. 20, and crossed the river to the point where the northern terminal of the D.R.L. & W. Ry. will be located. Work on the line will be started at this point southerly, to meet the construction gangs working northerly. It is expected that the line will be completed and opened for traffic early in 1907.

Essex Terminal Ry.—Good progress has been made with the purchase of the right of way; specifications are being prepared by the Chief Engineer, and it is expected that contracts will be let at an early date (Aug., pg. 451.)

Fording Valley Ry.—Construction is reported to have been started upon the projected route of this railway, which will extend from Michel, on the Crow's Nest Pass line of the C.P.R., to the C.P.R. transcontinental railway. The section now under construction will extend from Michel to the collieries, now under development, of the Imperial Coal Co., a distance of about 30 miles. (Aug., pg. 451.)

Intercolonial Ry.—Tenders are under consideration for the erection of a passenger car repair shop, a paint shop and a store-house at Moncton, N.B. These are part of the new car shops, etc., general dimensions of which were published in our July issue, pg. 381.

Tenders are being received for the steel superstructure of a bridge at Doaktown, and the masonry substructure of a bridge at Boiestown, N.B., on the Loggieville-Fredericton section (the old Canada Eastern Ry.); the construction and erection of the steel superstructure of a bridge at Boyer River near St. Charles Junction, Que.; and for excavation and grading for new tracks between North St. station and the grain elevator at Halifax, N.S. (Aug., pg. 453.)

Kootenay Central Ry.—A contract has been entered into between the Dominion Government and the K.C. Ry. Co. for the construction of a railway from Golden to the International boundary via Windermere and Fort Steele, B.C., crossing the Crow's Nest Pass Ry. at or near Elks. The distance covered by the contract is 186 miles, and the rate of subsidy is not to exceed $6,400 a mile.

Margaree Coal and Ry. Co.—We are advised that at present the company is in a transition stage, and that nothing definite as to its plans can be made public. It is said, however, that a start may be made upon the construction of the projected line in a very short time. (Aug., pg. 455.)

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Midway and Vernon Ry.—Spokane and Seattle, Wash., unconfirmed press reports state that survey parties are in the field locating a line between Midway and Vernon, B.C.; that R. A. Alley, of Seattle, is interested in the project; that R. Smalley, of Greenwood, B. C., was engaged in financing the line; that 5,000 tons of steel rails had been ordered in Pittsburg, Pa., and that it was understood that the C.P.R. was at the back of the project. (July, pg. 381.)

Minudie Coal and Ry. Co.—The report of the Provincial Engineer for Nova Scotia for 1905 showed that the plans, profiles and books of reference for the line throughout had been approved, and also standard plans for the structures for the same. Considerable construction work had been done on the line before work was suspended for 1905. We were advised, Aug. 17, that it was expected to have the line completed by Sept. 1, and that it would be opened for traffic immediately thereafter. The contractors, A. and W. D. Wheaton, have completed the grading, and have done the tracklaying and ballasting. The line extends from River Hebert on the Canada Coals and Ry. Co.'s line, to Minudie, where the company has its collieries, and was constructed to provide for the shipment of the output. The total length of the line is seven miles. (May, 1905, pg. 185.)

Owen Sound and Meaford Ry.—The distance between Owen Sound and Meaford, Ont., by the prospective route, will be about 30 miles. The route will follow the bay shore and will not pass through any villages except Leith. No contract had been let, and no construction had been done when we were last advised. J. G. Kerry, a G.T.R. engineer, made the surveys, and R. McDowal, C.E., of Owen Sound, will likely have charge of construction. No definite arrangements have been made with respect to the building or the operation of the line. Following are the officers and directors for the current year: President, Jas. McLauchlin; Secretary-Treasurer, A. G. Mackay; other directors: J. Wright, B. Allen, C. Eaton, H. B. Smith, G. Brown. (Aug., pg. 455.).

Prince Albert and North Saskatchewan Ry.—J. E. Bradshaw, F. C. Baker, Senator Davis, W. Cowan, S. McLeod, O. B. Manville, V. S. Cook, Judge McGuire, of Prince Albert, Sask., and J. Simpson, of Yorkton, Sask., are the provisional directors named in the act passed last session of the Dominion Parliament for the purpose of constructing a railway from Prince Albert to Hudson Bay, via Pas Mission, connecting there with the Canadian Northern Ry. At a meeting of the provisional directors at Prince Albert, Aug. 19, it was decided to have a preliminary survey made of the route, and to arrange for an early start at construction. It was also decided to apply to the Dominion Government to guarantee the company's bonds at the rate of $13,000 a mile.

Prince Edward Island Ry.—Tenders are being received for the construction of a car shop at Charlottetown, P.E.I. The new buildings will be erected on the site of the old ones, and will be of brick and concrete and of the most modern design. (Aug., pg. 455.)

Quebec, Montreal and Southern Ry.—The newly organized company, a subsidiary of the Delaware and Hudson Rd., which has taken over the Quebec Southern Ry. and the South Shore Ry., has authorized the construction of a line from Pierreville to Quebec, and the putting in order of the entire line. It is proposed at some future time to take into consideration the construction of a bridge across the St. Lawrence at St. Helen's Island, Montreal. F. D. Anthony, Chief Engineer of the D. and H. Rd., reported upon plans for such a bridge a couple of years ago. (See Delaware and Hudson Rd., Aug., pg. 451.)

Rothwell Coal Co.—H. J. Evans, G. C. Jordan, Jas. L. McAvity, St. John, N.B.; W. B. Evans, Minto, N.B.; E. G. Evans, Hampton, N.B.; H. B. Hay, Chipman, N.B.; H. Wilson, Coal Creek, N.B., have been incorporated under the New Brunswick Companies' Act, for the purpose of acquiring and operating coal mines in New Brunswick, and in connection therewith to construct tramways or railways, to be operated by steam or other motive power, and to purchase locomotives and other rolling stock.

Spokane International Ry.—A permit has been taken out at Spokane, Wash., by D. C. Corbin, for the construction of a freight station to cost $18,000. The structure will be two stories high, the material being brick and steel. The S.I. Ry. is under construction from Spokane to the International boundary, where it will connect with a C.P.R. branch line from Yahk, B.C. (Dec., 1905, pg. 569.)

Temiskaming and Northern Ontario Ry.—The Commissioners have decided to advertise for tenders for the construction of three branch lines: A line to the wharf at Haileybury, Ont.; a line from Cobalt, through the Gillies limit, to be known as the Kerr Lake branch; a line from Englehart to the foot of Long Lake. The branch at Haileybury will leave the main line at a point about two miles north of the station and run to a point at or near the dock, a distance of about two miles. That at Kerr Lake will leave the main line just south of Cobalt and run into Kerr Lake region, a distance of about four miles. The branch at Charlton will leave the main line at some point between Charlton and Englehart, and run into the town of Charlton, a distance of about seven miles. There are no special engineering difficulties on any of these branches. There will be considerable rock work on the Kerr Lake branch, and the other two branches will be largely in earth. (Aug., pg. 457.)

Vancouver, Victoria and Eastern Ry.—Reports from the Pacific coast state that it is expected to have trains in operation on the section of the line between Midway, B.C., and Oroville, Wash., by the end of Oct. The distance between these points is 60 miles, and tracklaying is said to have been progressing at the rate of a mile a day for some time past. Work on other sections of the line is also being proceeded with rapidly. There arrived at Vancouver, Aug. 31, from Sydney, N.S., a cargo of 6,000 tons of 75 lb. steel rails for use in the Fraser River valley section of the line. On the heavy grades in the mountains 85 lb. steel is being laid. A survey party under W. W. Amburn, who had just completed a reconnaissance of the Similkameen River route through the Hope mountains, is engaged in making a survey of the country on the divide between Silver Creek and Fraser River. (July, pg. 381.)

Winnipeg Union Station.—Considerable negotiations appear to be in progress at Winnipeg in connection with the proposal to construct a Union Station there. The Canadian Northern Ry. and the G.T. Pacific Ry. are favorable to the proposal, and will assist in carrying it out as far as they possibly can, and it is said an endeavor is being made to bring the J. J. Hill interests into the plan. Winnipeg papers state that an effort will be made to get the consent of the C.P.R. to allow the other lines to use its right of way through the city, in which case the City Council would surrender Stanley Park for Union Station purposes. Meanwhile, it is stated that J. Woodman, C.E., is preparing plans for a station building to be submitted to the railway companies interested and to the Board of Railway Commissioners.

Telephone Crossings of Railways.

The Board of Railway Commissioners has adopted a set of standard conditions and specifications for telephone wires crossing railway tracks, for use in connection with orders affecting the Bell Telephone Co. The specifications are being made standard by the Board in orders made permitting other telephone companies to carry their lines across railway tracks, and also, so far as they can be made to apply, to telegraph companies desiring to carry their lines across the tracks of a railway company.

CONDITIONS.

(1) The Telephone company shall, at all times, at its own expense, maintain in good order and condition, and at the height called for by the specifications hereinafter set forth, the lines, wires and cables crossing the said railway so that at no time shall any damage be caused to the company owning, operating or using the said railway or to any person lawfully upon or using the same, and shall use all proper and necessary means to prevent any such wires and cables from sagging below said height.

(2) The Telephone company shall, at all times, wholly indemnify the company owning, operating or using the said railway of, from and against all loss, costs, damage and expense to which the said railway company may be put by reason of any damage or injury to person or property caused by any of the said wires or cables, or any works or appliances herein provided for, not being erected in all respects in compliance with the terms and provisions of the order giving leave for the crossing, or if, when so erected, not being at all times maintained and kept in good order and condition and in accordance with the terms and provisions of said order or any order or orders of the Board in relation thereto, as well as any damage or injury resulting from the imprudence, neglect or want of skill of any of the employes or agents of the Telephone company.

(3) No work shall at any time be done under authority of the order authorizing the crossing in such a manner as to obstruct, delay or in any way interfere with the operation or safety of the trains or traffic on the said railway.

(4) Where, in affecting any such crossing, the Telephone company desires to erect poles between the tracks of the railway; before any work in connection with such crossing is begun, the Telephone company shall give to the railway company owning, operating or using the said railway, at least forty-eight hours' prior notice thereof in writing, and the said railway company shall be entitled to appoint an Inspector under whose supervision such work shall be done and whose wages, at a rate not to exceed $3.00 per day, shall be paid by the Telephone company.

(5) Where wires or cables to be carried across the railway are to be carried above existing telegraph or other telephone wires and across a trolley wire or other high voltage wires, either within the spans to be constructed across the railway or within the spans next thereto on either side, such additional precautions shall be taken by the Telephone company by the placing of guard wires or other protective devices as the Engineer of the Board shall consider necessary.

(6) Nothing in the order authorizing the crossing shall prejudice or detract from the right of the company owning, operating or using the railway to adopt at any time the use of electric or other motive power and to place and maintain upon or under its right of way such poles, lines, wires, cables, pipes, conduits and other fixtures and appliances as may be necessary or proper for such purposes. Liability for the cost of any re-

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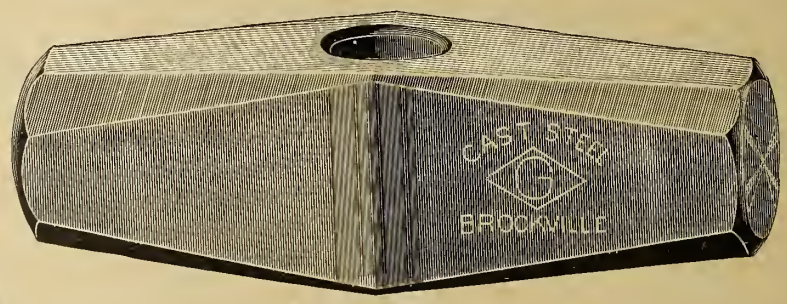

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moval, change in location, or construction of the poles, lines, wires, cables, or other fixtures or appliances erected by the Telephone company under authority or any order of the Board over the tracks of the said railway company rendered necessary by any of the matters referred to in this paragraph shall be fixed by the Board on the application of any party interested.

(7) Any dispute arising between the Telephone company and the said railway as to the manner in which the said wires and cables are being erected, maintained, used or repaired shall be referred to the Chief Engineer of the Board, whose decision shall be final.

(8) The wires and cables of the Telephone company shall be erected and maintained across the said railway in accordance with the plan approved by the Board and the specifications following.

SPECIFICATIONS.

Poles to be located, wherever possible, at a distance from the rail not less than equal to the length of the poles used. Poles must not under any circumstances be placed less than 12 ft. from either rail of a main line, or less than 6 ft., from either rail of siding. At loading sidings sufficient space to be left for a driveway.

Poles of 25 ft. to 34 ft. in length to be set not less than 5 ft.; 35 ft., 5½ ft.; 36 ft. to 50 ft., not less than 6 ft.; and over 50 ft., 7 ft. in solid ground. Poles with side strains to be reinforced. Poles to be at least 6 in. in diameter at top. In soft ground poles must be set so as to obtain the same amount of rigidity as would be obtained by the above specifications for setting poles in solid ground.

Span must be as short as possible consistent with the rules of locating and setting of poles.

The pole at each side of a railway must be fitted with double cross arms of dimensions not less than 3 x 4 in., equipped with 1¼ in. hardwood pins nailed in arm; arm to be properly fastened to the pole in a gain by not less than two lag screws ½ x 7 in. or by a ⅝ in. machine bolt through the pole; arms carrying more than two wires or carrying a cable must be braced by two iron braces fastened to the arm by ⅜ in. carriage bolts, and to the pole by a lag screw 5 x ⅜ in.

The lowest wire must not be less than 25 ft. from top of rail for spans up to 145 ft., 2½ ft. additional clearance must be given for every 20 ft. additional length of span. Wires crossing over or under telegraph or telephone wires erected along the railway right of way must clear either 3 over or 3 ft. under.

(To be continued in October issue.)

T. Harris has been appointed Divisional Car Foreman C.P.R., with headquarters at North Bay, Ont.

The C.P.R. Co. announces that the acreage and amount of land sales will not be published in future until formal reports are issued to the shareholders.

H. E. Kelly, Chief Train Dispatcher C.P.R., Toronto, who has been granted extended leave on account of illness, is spending some time in the Northwest.

The Lotbiniere and Megantic Ry. operates a telephone line along its railway between Lyster Junction and St. Jean des Chaillons, Que., 30 miles.

J. P. Kirkpatrick has been appointed Trainmaster districts 31 and 32 G.T.R., with office at Ottawa, Ont., vice W. C. C. Mehan, resigned. He will have jurisdiction over all employes in station, train, and yard service, and report to the Assistant Superintendent, L. G. Coleman. All reports pertaining to district 30 heretofore addressed to the Trainmaster, will be sent direct to the Assistant Superintendent at Ottawa.

Orders by the Railway Commissioners.

The following orders additional to those given on pgs. 509 and 511, have been issued by the Board of Railway Commissioners:

1225. June 19.—Authorizing the C.P.R. to construct a branch line from a point on its line crossing Higgins Ave., Winnipeg, across lot 5 to lot 6, block 46.

1230. June 21.—Authorizing the C.P.R. to construct a branch line from its Higgins Ave. spur through H. F. Anderson & Co.'s property.

1243. June 22.—Exempting the Kettle Valley Ry. Co. from submitting plans of the deviation in the location of its railway up to the North Fork of the Kettle River.

1244. June 27.—In re application of the town of Strathroy for better protection at certain of its streets, where they are crossed by the G.T.R.

1247. June 28.—Extending time for installation of interlocking plant by James Bay Ry. at Washago, Ont.

1248. June 14.—Directing the C.P.R. to maintain suitable gates at the crossing of Main St., Fairville, N.B.; also at the highway crossing, Milford, N.B.

1255. June 4.—Authorizing the G.T.R. to construct a branch line across Main St., Dunnville, Ont., to the Imperial Plaster Co.'s premises.

1260. July 5.—Authorizing the Chatham, Wallaceburg and Lake Erie Ry. to strengthen the Third St. bridge, Chatham, Ont.

1263. June 30.—Extending time till July 20, 1907, for the construction of branch from the main line of C.P.R. to the junction of the G.T.R. Co.'s switch on St. Patrick St., Montreal, as authorized by order dated July 20, 1905.

1269. July 14.—Authorizing the C.P.R. to construct a spur from its New Westminster branch, at Millside, B.C., to the Fraser River Saw Mills Co.'s mill.

1270. July 14.—Authorizing the C.P.R. to construct, maintain and operate a branch line from its Mission Branch in B.C.

1271. July 12.—Authorizing the C.P.R. to construct a branch line from its Higgins Ave. spur to the northern side of Logan Ave., Winnipeg.

1275. July 12.—Granting leave to the town of Westmount, Que., to place wires across the C.P.R. tracks east of the company's bridge over the Glen Road.

1276. July 13.—Granting leave to the Dominion Natural Gas Co., to lay a gas pipe under the G.T.R. tracks at Concession St., Galt, Ont.

1278. June 29.—Authorizing the G.T.R. and the Montreal Park & Island Ry. to provide and maintain two box culverts where the G.T.R. tracks adjoin the farms of James Armstrong and J. J. Cook, lot 753, Lachine, Que.

1279. May 8.—Authorizing the Toronto, Hamilton & Buffalo Ry. to cross with its tracks Garth St., Hamilton, Ont.

COMPARATIVE VIEW OF THE NIAGARA NAVIGATION CO.'S NEW STEAMBOAT CAYUGA.

1288. July 17.—Granting leave to the Midland Ry. to place its telegraph wires across the C.P.R. tracks at Plum Coulee, Man.

1289. July 17.—Granting leave to the Brandon, Saskatchewan & Hudson Bay Ry. to place its telegraph wires across the Canadian Northern Ry. tracks at Minto, Man.

1297. July 24.—Approving detail plans in connection with the Bank St. subway, Ottawa, authorized by order of Sept. 4, 1905.

1315. July 19.—Granting leave to the Bell Telephone Co. to place its wires under the C.P.R. tracks at Dovercourt Road, North Toronto.

1322. June 29.—Re application of the Wm. Davies Co., Toronto, that the G.T.R. and C.P.R. have advanced their rate from Toronto to Montreal on packing-house products in carloads for export. See pg. 517.

Railway Finance, Meetings, etc.

Alberta Railway and Irrigation Co.—Gross railway earnings for July, $12,789.

Atlantic and St. Lawrence Rd.—A quorum of shareholders was not present at the annual meeting called to be held at Portland, Me., Aug. 7. The old board of directors will hold over. The line is leased to the G.T.R., and the meetings are merely formal.

Baie des Chaleurs Ry.—An action has been entered in the Quebec courts by Galendez & Co., bankers, London, Eng., against the B. d. C. Ry. Co. to recover $529,493, being the amount of first mortgage bonds and interest, from June 24, 1900.

Dominion Atlantic Ry.—Gross earnings for July, $138,600 against $127,856 for July, 1905; making for seven months ended July 31, $565,506 against $497,389 for same period 1905.

Esquimalt and Nanaimo Ry.—Reports from New Westminster, B.C., state that an arrangement has been made between

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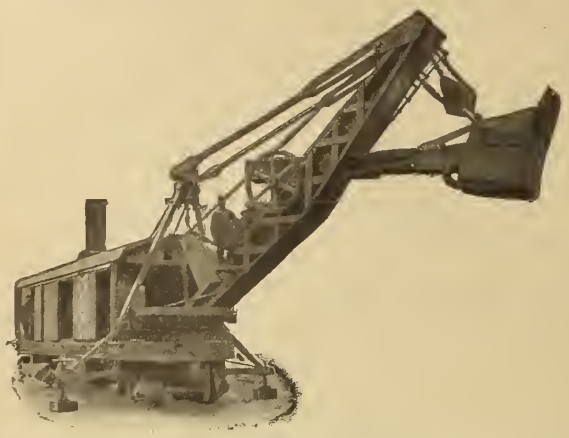

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Weighs only 300 lbs. yet is strong and durable.
Can be readily lifted and carried by two men.
Can be run at any speed required up to 30 miles per hour.
Can be quickly taken apart for storage in baggage car.
Carries comfortably three passengers and luggage.
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the C.P.R., as owning the E. and N. Ry., and the Fraser River Sawmill Co., by which the latter will take over the whole of the timber lands comprised in the land grant to the E. and N. Ry.

Lotbiniere and Megantic Ry.—Following are the officers and directors for the current year: President, F. N. McCrea; First Vice-President, B. Quinn; Second Vice-President, E. W. Tobin; Secretary and Treasurer, J. A. Begin; other director, J. W. Quinn. The following are the officials: General Manager, W. H. Mitchell; Superintendent, G. W. Robins; Master of Transportation, C. J. Jamieson; Accountant, S. R. MacDonald; Master Mechanic, W. Temple.

Michigan Central Rd., and Pere Marquette Ry.—In Nov., 1900, an agreement was entered into between the Lake Erie and Detroit River Ry. (now owned by the Pere Marquette Rd.) and Hiram Walker & Sons, on the one hand, and the Canada Southern Ry. (owned and operated by the Michigan Central Rd.) on the other, by which in return for certain concessions granted by the C.S.Ry. to the L.E. and D.R. Ry. between Ridgetown and St. Thomas, the latter was to ship all controllable freight up to $30,000 a year over the M.C. Rd. It was claimed that during the two years following all controllable freight was not so sent, and that the Michigan Central Rd. sustained damage to the extent of $14,084.38. After going through the Canadian courts the case reached the Privy Council in London, Eng., and a decision has been reached confirming the judgment of the Ontario court that the M.C. Rd. was entitled to damages.

Qu'Appelle, Long Lake and Saskatchewan Ry.—London, Eng., papers state that under the terms of the sale of this line to the Canadian Northern Ry., the latter company will give in exchange for every existing £100 6% bond, £107 in Qu'Appelle, Long Lake and Saskatchewan Ry. and Steamboat Co. 4% debenture stock, having 30 years to run, principal and interest guaranteed by the Canadian Northern Railway Co., interest to accrue from July 1, 1906, and to be payable half-yearly; the debenture stock not to exceed £1,050,000 in all, having a mortgage on the Qu'Appelle, Long Lake and Saskatchewan Ry., which will become a first mortgage on the extinction of the present first mortgage bonds on Aug. 1, 1911, or earlier, when all bonds are converted or paid off; converted bonds being in the meantime kept alive as collateral. The Government subsidy will be utilized as heretofore in part payment of interest on the debenture stock. The company to give in exchange for its scrip certificates issued from time to time for balance of unpaid coupons up to and including the coupons due Aug. 1, 1906, 30% of their face value in the new 4% debenture stock above referred to. The company to pay to Chaplin, Milne, Grenfell & Co., Limited, the agents of the 6% loan, £7,000 cash, in full satisfaction of all charges for commission, as well as of expenses connected with the transaction, including unpaid trustees' fees, printing, legal charges, remuneration of the committee, etc. Unless the holders of 80% of the face value of the existing bonds come in before Aug. 28 and authorize the committee to finally accept the proposals, Mackenzie, Mann & Co., Limited, may, within one week, elect whether they will withdraw altogether or proceed with the conversion of such amount as may have come in. New 4% debenture stock in the proportion of £107 per £100 bond and £30 per 100 certificates, will be retained against outstanding bonds and certificates which may not be forthwith converted, and issued only for the purpose of conversion of such outstanding bonds and certificates as when presented.

Reports from Regina, Sask., state that the Canadian Northern Ry. will not take over the operation of the line until the spring, the present arrangement with the C.P.R. to be continued until then.

Quebec Central Ry.—Gross earnings for June, $85,233.64; net earnings, $31,776.14; against $79,039.43 gross and $27,391.53 net for June, 1905. Net earnings for six months ended June 30, $151,045.09, against $115,378.18 for same period 1905.

Quebec Central Ry.—Gross earnings for July, $97,640.10; net earnings, $41,132.05, against $81,245.71 gross, and $30,349.16 net for July, 1905. Gross earnings for seven months ended July 31, $522,771; net earnings, $192,177.14, against $445,650.41 gross and $145,727.34 net for same period, 1905.

Quebec Southern Ry.—The Judicial Committee of the Privy Council, London, Eng., has given judgment in the action of White against Beiqué, which was brought to upset the recent sale of several lines operated as the Q.S. Ry., to Senator Beique, acting on behalf of the Delaware and Hudson Co., under an order of the Court of Exchequer. The decision confirms that of the Quebec courts, which held that the sale had been properly made.

Temiscouata Ry.—The corrected earnings for June are: $13,785.38 against $13,925.07 for June, 1905. Gross earnings for July, $17,471.26, against $13,897.33 for July, 1905.

Toronto, Hamilton and Buffalo Ry.—Gross earnings for July, $62,357.57, against $55,037.56 for July, 1905.

White Pass and Yukon Ry.—Gross earnings for the 12 months ended June 30, $1,827,244. Gross earnings for July $349,081.

C.P.R. ANNUAL REPORT.

Following is the 25th annual report, addressed to the shareholders, over the signature of the President, Sir Thos. G. Shaughnessy:

The accounts for the year ended June 30, 1906, show the following results:

Gross earnings		$61,669,758 16
Working expenses		38,696,445 53
Net earnings		$22,973,312 63
Net earnings of steamships in excess of amount included in monthly reports		652,577 37
Interest on deposits and loans	$519,738 47	
Interest from Minneapolis, St. Paul & Sault Ste. Marie Ry. Co. on bonds held by the Co.	159,720 00	
Interest from Mineral Range Rd. Co. on bonds held by the Co.	50,160 00	
Interest from Montreal & Atlantic Ry. on bonds held by the Co	47,250 00	
Dividends on Minneapolis, St. Paul & Sault Ste. Marie Ry. preferred and ordinary stocks held by the Co	530,002 00	
Dividend on St. John Bridge & Ry. Extension Co. stock	10,000 00	
		1,316,870 47
		$24,942,760 47
Deduct fixed charges		8,350,544 84
Surplus		$16,592,215 63
Deduct amount transferred to steamship replacement fund	$500,000 00	
Contribution to pension fund	80,000 00	
		580,000 00
		$16,012,215 63
From this there has been charged a ½-yearly dividend on preference stock of 2%, paid April 2, 1906	$ 805,733 33	
And a ½-yearly dividend on ordinary stock of 3%, paid April 2, 1906	3,042,000 00	3,847,733 33
		$12,164,482 30
From this there has been declared a second ½-yearly dividend on preference stock of 2%, payable Oct. 1, 1906	$854,400 00	
And a second ½-yearly dividend on ordinary stock of 3%, payable Oct. 1, 1906	3,042,000 00	

The working expenses for the year were 62.75% of the gross earnings, and the net earnings 37.25%, as compared with 69.35 and 30.65% respectively in 1905.

Four per cent. consolidated debenture stock to the amount of £2,531,273 was created and sold and out of the proceeds the debt of $7,000,000, bearing interest at the rate of 4 1-20% per year, due the Province of Quebec in connection with the purchase of the railway between Ottawa and Quebec was satisfied and discharged, and the remainder was used to meet expenditures for the construction of branch lines and of two additional Atlantic steamships.

Preference stock to the amount of £1,000,000 was created and sold for the purpose of meeting expenditures the shareholders had sanctioned.

The Duluth, South Shore and Atlantic Ry. Co. failed to meet any portion of the year's interest on the bonds of that company held in the C.P.R. treasury. Although the earnings showed a substantial increase over the previous year, the necessity for defraying out of revenue some large and extraordinary expenditures, including the cost of the new ore dock at Marquette, left nothing to apply towards interest on the bonds in question. The directors anticipate very much better results from this property in the next year.

The land sales were 1,115,743 acres, which realized $6,513,452, an average of $5.84 an acre. The cash receipts from sales of land were sufficient during the year to enable the directors to deposit with the Dominion Government towards the redemption of the $15,000,000 land bonds mortgage a further sum of $6,500,000, leaving a balance due on account of this mortgage of $1,500,000, against which are deferred payments on account of land and townsites sold of $16,382,823.

Pursuing the policy of extending its lines into productive territory the Minneapolis, St. Paul and Sault Ste. Marie Ry. Co. constructed 291 additional miles of railway, and, for the purpose of meeting the expenditure, issued and sold 4% consolidated mortgage bonds to the amount of $5,820,000, on which the C.P.R. Co.'s guarantee of interest was endorsed.

The two new Atlantic passenger steamships, Empress of Britain and Empress of Ireland, are now in regular service, and appear to meet all the requirements of the contract and specifications.

The construction of the various new branch lines and extensions of the system is progressing favorably. The Guelph and Goderich Ry. is nearing completion. Work on the line between Toronto and Sudbury is well advanced. It is expected that the branch from Wolseley to Reston will be finished this autumn. Grading is being done in both directions between Wetaskiwin, Strassburg and Sheho with a view to a through connection between the Manitoba and North-Western line, the Pheasant Hills line, and Edmonton, in 1907. An important and expensive bridge will be required over the Saskatchewan River at Edmonton, which the Calgary and Edmonton Ry. Co. will provide under the terms of the agreement with that company sanctioned some time ago.

An additional and more economical avenue for the movement of traffic in either direction between the head of ocean navigation and Georgian Bay will shortly be required. After careful investigation and surveys the directors are of opinion that this can best be secured by the construction of a railway from Peterboro, on the Ontario and Quebec section, to Victoria Harbor, a distance of 96 miles. By this route the distance from Montreal to Georgian Bay will be 358 miles as against 449 miles by the present Owen Sound route, and the gradients will be much more favorable. It is proposed

(Continued on page 537.)

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C.P.R. ANNUAL REPORT.

(*Continued from page 533.*)

to enter into an arrangement with the Georgian Bay and Seaboard Ry. Co., which has a Dominion charter covering this territory, to construct this line and to lease it to the C.P.R. Co. for 999 years at a rental equivalent to the interest at 4% per annum on the bonds of the Georgian Bay and Seaboard Ry. Co. issued with the consent of the C.P.R. Co. Resolutions embodying the transaction will be submitted for consideration.

Arrangements have been completed for a lease for 94 years from Jan. 1, 1906, of the Joliette and Brandon Ry. (formerly the Montreal and Lake Maskinonge Ry.) extending from St. Felix de Valois on the Joliette branch to Lake Maskinonge in the Parish of St. Gabriel de Brandon, about 13 miles. The rental will be a sum equal to the interest at the rate of 4% per annum on the bonds of the Joliette and Brandon Ry. Co. issued with the consent of the C.P.R. to the amount of $125,000. Your approval of the proposed lease will be asked.

You will be asked to sanction a lease, for 99 years, of the Walkerton and Lucknow Ry., extending from Proton on the Toronto, Grey and Bruce line, to Walkerton, Ont., about 37 miles, at a rental equivalent to 4% per annum on the bonds of the Walkerton and Lucknow Ry. Co., not exceeding in amount $20,000 per mile of railway.

Your directors have entered into an arrangement with the Berlin, Waterloo, Wellesley and Lake Huron Ry.Co. for a lease to your company, for 99 years, of the railways of that company constructed and to be constructed, including the railways purchased by that company from the Galt, Preston and Hespeler Ry. Co. and the Preston and Berlin Ry. Co. The rental will be a sum equal to the interest at the rate of 4% per annum on the bonds issued by the Berlin, Waterloo, Wellesley and Lake Huron Ry. Co. not exceeding $20,000 per mile of railway constructed or to be constructed by the B., W., W. and Lake Huron Ry. Co. The lease will be submitted for your approval.

You will be asked to authorize the issue of 4% consolidated debenture stock for the purpose of providing the requisite funds for the construction and equipment of the following branch lines, which, in the opinion of your directors, are very desirable in the interest of the public and of the company: The Moose Jaw branch extending from the main line at Moose Jaw northwesterly, about 50 miles; the Weyburn branch extending from Weyburn on the northwestern extension of the Souris branch to Stoughton on the Arcola-Regina extension of the Souris branch, about 36 miles; an extension of the Stonewall branch from Teulon northerly, about 20 miles; an extension of the West Selkirk branch from Winnipeg Beach to Gimli, about 10 miles; a branch line from Lauder on the Souris branch westerly to Broomhill, about 20 miles; a branch line from near Darlingford on the Manitoba Southwestern Colonization Ry. southerly, about 6 miles.

The additional ordinary capital stock offered to the shareholders at par, as authorized at the special general meeting held on Mar. 19 last, has all been subscribed excepting a few shares which will, at the proper time, be sold in open market.

It is the policy of your directors to replace, at the cost of working expenses, all rolling stock that becomes obsolete or is destroyed, car for car, and locomotive for locomotive, without reference to the increased capacity and cost of the more modern standard equipment. As a consequence, every car and locomotive shown in the inventory of rolling stock is either in service or is provided for in the equipment replacement fund."

In accordance with the by-laws the following directors will retire from office at the approaching annual meeting; they are eligible for re-election: C. H. Mackay, T. Skinner, Lord Strathcona, Sir Thos. G. Shaughnessy.

On June 19 last Hon. L. J. Forget, Senator, was appointed a director in the place of the late G. R. Harris.

CONDENSED BALANCE SHEET.

Railway and equipment		$225,721,418 20
Ocean, lake and river steamships	$17,977,363 91	
Less amount applied in reduction of cost	2,268,224 69	
		15,709,139 22
Acquired securities (cost)		52,492,909 22
Properties held in trust for the company		2,651,535 26
Deferred payments on land and townsite sales		16,382,823 17
Advances:		
To Duluth, South Shore & Atlantic Ry., car trust, etc.		236,213 19
Material and supplies on hand		9,038,819 63
Station and traffic balances, accounts receivable		5,072,013 78
Imperial and Dominion Governments: Accounts due for mail transportation		263,106 86
Cash in hand		17,752,415 70
		$345,320,394 23

NOTE.—In addition to above assets, the company owns 9,847,975 acres of land in Manitoba, Saskatchewan and Alberta (average sales past year $5.84 per acre) and 3,625,375 acres in British Columbia.

Capital stock		$101,400,000 00
Payments on subscription to new issue capital stock, $20,280,000.00		4,595,190 00
4% preference stock		42,719,999 04
4% consolidated debenture stock		101,519,411 21
First mortgage bonds, 5%	$34,968,633 33	
Canada Central Ry., 6%	973,333 33	
Algoma branch, 1st mortgage	3,650,000 00	
North Shore Ry., 1st mortgage	616,119 67	
		40,238,086 33
Land grant bonds—		
Guaranteed 3½% land bonds	15,000,000 00	
Less amount paid Dominion Government towards redemption	13,500,000 00	
		1,500,000 00
Current accounts, pay rolls and traffic balances		9,567,755 18
Interest on funded debt and rental of leased lines:—		
Coupons due July 1, 1906, and including coupons overdue, not presented	$1,475,947 96	
Accrued to date, not due	190,221 29	
		1,666,169 25
Equipment replacement fund		963,004 58
Steamship replacement fund		840,666 67
Land grant—		
Sales of land and town sites.		14,568,697 42
Surplus		25,741,414 55
		$345,320,394 23

FIXED CHARGES FOR YEAR ENDED JUNE 30.

1st mortgage bonds 5% due July 1, 1915	$ 1,749,931 66
Province of Quebec, 4⅗% to Feb. 28, 1906	189,000 00
Canada Central Ry. 2nd mortgage 6% bonds due Nov. 1, 1910	58,400 00
St. Lawrence & Ottawa Ry. 4% 1st mortgage bonds due June 15, 1910	38,933 34
Man. Southwestern Colonization Ry. 1st mortgage 5% bonds due June 1, 1934	127,200 00
Toronto, Grey & Bruce Ry. rental	140,000 00
Ontario & Quebec Ry. debenture stock 5%	975,129 56
Ontario & Quebec Ry. (ordinary stock) 6%	120,000 00
Atlantic & North-West Ry. 1st mortgage bonds (less Government proportion) due Jan. 1, 1937	136,333 34
Algoma Branch 5% 1st mortgage bonds due July 1, 1937	182,500 00
Rental, Calgary & Edmonton Ry	138,357 60
Rental, Farnham to Brigham Jct.	1,400 00
Rental, Mattawamkeag to Vanceboro	23,800 00
Rental, New Brunswick Ry. System	372,829 74
Rental, terminals at Toronto	30,821 69
Rental, terminals at Hamilton	33,437 46
Rental, Hamilton Jct. to Toronto	40,027 86
Rental, St. Stephen and Milltown Ry	2,050 00
Rental, Lindsay, Bobcaygeon & Pontypool Ry	6,701 35
Rental, Lachine Canal branch	847 72
Interest on Montreal & Western Ry. purchase	18,769 75
Interest on equipment leases	157,674 55

4% CONSOLIDATED DEBENTURE STOCK.

Interest from July 1, 1905	$3,568,021 97	
Interest from Jan. 1, 1906	246,377 25	
	$3,814,399 22	
Less received from subsidy Northern Colonization Ry.	8,000 00	
		$3,806,399 22
		$ 8,350,544 84

RECEIPTS AND EXPENDITURES.

Cash in hand June 30, 1905		$16,496,291 41
Surplus revenue as per statement		16,012,215 63
Land department—		
Lands and townsites		
Net proceeds of sales	$6,892,145 17	
Less amounts remaining in deferred payments	6,168,752 75	
	$ 723,392 42	
Collection of deferred payments on previous years' sales	4,445,109 21	
		5,168,501 63
Subscription to additional ordinary stock		
Payments of remaining instalments on issue $16,900,000, and premium on unsubscribed stock sold	$2,814,618 54	
Payment of instalments on issue $20,280,000	4,595,190 00	
		7,409,808 54
4% preference stock		
Amount realized from issue of £1,000,000		4,939,289 41
Consolidated debenture stock		
Amount realized from issue of £2,531,273		12,994,354 30
		$63,020,460 92
Deduct increase in accounts receivable		
Station and traffic balances	$5,072,013 78	
Due from Imperial and Dominion Governments	263,106 86	
	$5,335,120 64	
Less amounts at June 30, 1905	4,125,052 61	
		1,210,068 03
		$61,810,392 89

EXPENDITURES.

Dividends on preference stock		
2% paid Oct. 2, 1905	$757,066 66	
2% paid April 2, 1906	805,733 33	
		$1,562,799 99
Dividends on ordinary stock		
3% paid Oct. 2, 1905	$3,042,000 00	
3% paid April 2, 1906	3,042,000 00	
		6,084,000 00
Properties held in trust for the company		715,927 02
Construction acquired and branch lines		4,923,597 11
Additions and improvements, main line and branches		7,783,030 91
Additions and improvements, leased and acquired lines		757,580 94
Rolling stock, shops and machinery		6,589,846 84
Ocean, lake and river steamships		
Fitting Atlantic steamships for passenger service	$ 23,625 70	
Additional steamships and appurtenances for Pacific coast service	$225,569 82	
Less sale of steamship "Danube"	10,000 00	
	215,569 82	
Additional river steamers and barges	83,238 60	
Payments on account new Atlantic steamships	2,649,206 51	
		2,971,640 63
Land grant bonds		
Amount paid Dominion Government on account of bonds		6,500,000 00
Mortgage bonds		
Payment of amount due Province of Quebec on Q.M.O. & O. and N.S. Ry.		7,000,000 00
Securities acquired		
Kingston & Pembroke Ry., preferred and ordinary stock	125 00	
St. John Bridge & Railway Extension ordinary stock	192,250 00	
		192,375 00
Increase in material and supplies on hand		847,522 36
		$45,928,320 80
Less increase in current liabilities		1,870,343 61
		$44,057,977 19
Cash in hand		17,752,415 70
		$61,810,392 89

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The Company has General Stores at Winnipeg, Vancouver, Calgary, Edmonton, and other places where purchasers will find the best of goods at moderate prices.

Transportation by the Company's Steamers, brigades of boats and canoes throughout the Territories not traversed by railways.

Full information at the Company's Offices, Winnipeg, or 1 Lime St., London, E.C.

EARNINGS FOR YEAR ENDED JUNE 30.

Passengers	$ 16,041,615 52
Freight	39,512,973 18
Mails	707,007 97
Sleeping cars, express, elevators, telegraph and miscellaneous, including profit from ocean steamships	5,408,161 49
Total	$ 61,669,758 16

WORKING EXPENSES FOR YEAR ENDED JUNE 30.

Conducting transportation	$ 18,785,695 80
Maintenance of way and structures	9,105,249 56
Maintenance of equipment	7,369,565 84
Parlor and sleeping car expenses	231,688 62
Expenses of lake and river steamers	511,390 47
General expenses	1,964,093 00
Commercial telegraph	728,762 24
Total	$ 38,696,445 53

STATEMENT OF EQUIPMENT AT JUNE 30, 1906.

Locomotives	1,109
First and second-class passenger cars, baggage cars, and colonist sleeping cars	997
First-class sleeping, dining and café cars	160
Parlor cars, official and paymasters' cars	50
Freight and cattle cars (all kinds)	34,152
Conductors' vans	658
Board, tool and auxiliary cars and steam shovels	1,745

OCEAN, LAKE AND RIVER STEAMERS.

ATLANTIC SERVICE—Empress of Britain, Empress of Ireland, Lake Mantioba, Lake Champlain, Lake Michigan, Lake Erie, Mount Temple, Montcalm, Montfort, Montrose, Montreal, Milwaukee, Mount Royal, Montezuma, Monmouth.

PACIFIC SERVICE—Empress of India, Empress of Japan, Empress of China, Tartar, Athenian, Monteagle.

PACIFIC COAST SERVICE—Amur, Beaver, Charmer, Otter, Princess Beatrice, Princess Louise, Princess May, Princess Victoria, Queen City, R. P. Rithet, Tees, Yosemite.

UPPER LAKE SERVICE—Maniotba, Athabasca, Alberta.

BRITISH COLUMBIA LAKE AND RIVER SERVICE—Aberdeen, Kokanee, Minto, Moyie, Nelson, Rossland, Kuskanook, Columbia, Proctor, Sandon, Slocan, York, Victoria, Kootenay, Valhalla, Ymir.

FERRY SERVICE—Michigan, Ontario.

DESCRIPTION OF FREIGHT FORWARDED.

	1906	1905
Flour, brls	5,994,535	5,010,868
Grain, bush	82,196,648	59,739,180
Live stock, head	1,428,320	1,360,560
Lumber, ft	1,804,648,962	1,435,758,930
Firewood, cords	264,456	261,794
Manufactured articles, tons	3,818,625	3,250,067
All other articles, tons	4,098,819	3,894,259

FREIGHT TRAFFIC, YEAR ENDED JUNE 30.

	1906	1905
No. of tons carried	13,933,798	11,892,204
No. of tons carried one mile	5,342,248,625	4,155,256,309
Earnings per ton per mile	0.74 cts.	0.76 cts.

PASSENGER TRAFFIC, YEAR ENDED JUNE 30.

	1906	1905
No. of passengers carried	7,753,323	6,891,511
No. of passengers carried one mile	870,339,686	736,774,844
Earnings per passenger per mile	1.84 cts.	1.84 cts.

TRAIN TRAFFIC STATISTICS.

TRAIN MILEAGE.

	1906.	1905.
Passenger trains	11,086,929	9,797,618
Freight "	17,186,583	14,429,739
Mixed "	1,413,152	1,537,781
Total trains	29,686,664	25,765,138

CAR MILEAGE.

PASSENGER—	1906.	1905.
Coaches and P.D. and S. cars	54,717,641	47,640,910
Combination cars	2,310,246	2,012,194
Baggage, mail and express cars	20,339,499	18,102,150
Total passenger cars	77,367,386	67,755,254
FREIGHT—	**1906.**	**1905.**
Loaded	316,199,077	262,519,047
Empty	93,808,254	71,001,171
Caboose	18,326,491	15,390,124
Total freight cars	428,333,822	348,910,342
Passenger cars per traffic train mile	6.19	5.98
Freight cars per traffic train mile	23.03	21.85

PASSENGER TRAFFIC.

	1906.	1905.
Passengers carried (earning revenue)	7,665,481	6,800,427
Passengers carried (earning revenue) one mile	859,011,930	724,981,215
Passengers carried (earning revenue) one mile per mile of road	99,032	85,437
Average journey per passenger miles	112.06	106.60
Average amount received per passenger $	2.02	1.91
Average amount received per passenger mile cts.	1.80	1.79
Average number of passengers per train mile	68.72	63.96
Average number of passengers per car mile	15.37	14.90
Revenue from passengers per passenger car mile cts.	27.66	26.71
Total passenger train earnings per train mile $	1.49	1.40
Total passenger train earnings per mile of road $	2,149.89	1,864.30

FREIGHT TRAFFIC.

Tons of revenue freight carried one mile	5,190,951,172	4,018,602,710
Tons non-revenue freight carried one mile	839,801,843	777,323,013
Total tons (all classes) freight carried one mile	6,030,753,015	4,795,925,723
Tons of revenue freight carried one mile per mile of road	597,306	472,432
Tons of non-revenue freight carried one mile per mile of road	96,657	91,418
Total tons (all classes) freight carried one mile per mile of road	693,963	563,850
Average amount received per ton per mile of revenue freight cts.	0.743	0.767
Average no. of tons of revenue freight per train mile	279.10	251.69
Average no. of tons of non-rev. freight per train mile	45.15	48.68
Average no. of tons of (all classes) freight per train mile	324.25	300.37
Average no. of tons of revenue freight per loaded car mile	16.42	15.31
Average no. of tons of non-rev. freight per loaded car mile	2.66	2.96
Average no. of tons of (all classes) freight per loaded car mile	19.08	18.27
Freight train earnings per loaded car mile cts.	12.20	11.75
Freight train earnings per train mile $	2.07	1.93
Freight train earnings per mile of road $	4,440.24	3,627.04

SUMMARY OF MILEAGE.

	1906.	1905.
Mileage included in C.P.R. traffic returns	8,776.90	8,568.0
Mileage of other lines worked	43.80	438.0
Mileage under construction	923.70	481.4
	10,138.60	9,487.4
Mileage of Minneapolis, St. Paul & Sault Ste. Marie Ry	2,153.25	1,829.2
Mileage of Duluth, South Shore & Atlantic Ry	592.69	565.0
Total	12,884.54	11,881.6

Grain Shipments from the Twin Ports.

Following is a comparative statement of the grain shipments out of Port Arthur and Fort William, Ont., for the seasons of 1905 and 1906 from the opening of navigation to Aug 31:

	Bushels	1905	1906		
Wheat	"	10,218,567	18,099,750	increase	7,881,181
Oats	"	327,121	3,042,790	"	2,715,669
Barley	"	64 427	256,706	"	192,279
Flax	"	187.497	180,945	decrease	6,552
Total shipments	"	10,797,612	21,580,191	increase	10,782,579
Shipments carried in freight bottoms	"	414,911	3,325,330	increase	2,910,419

The G.T.R. has closed its station at Gore, Que.

We are advised by the General Manager Quebec Central Ry., that the company is not in the market for 500 box cars as stated in press reports, and that he does not know where the rumor could have originated.

The International Railroad Master Blacksmiths' Association met at Chicago, Ill., Aug. 21 to 23 inclusive. D. B. Swinton, Montreal, was the retiring president, and occupied the chair at the different meetings. It was decided to hold the convention for 1907 at Montreal.

Checking Intake and Output of Material Delivered to Shops.

By J. H. Callaghan, General Storekeeper, C.P.R.

The C.P.R. Angus shops, located at Montreal, are the largest group of railway shops on the continent, covering as they do an area of 250 acres with 17 acres under roof, and consisting of the following shops: Locomotive erecting and machine shop, grey iron foundry, wheel foundry, frog and switch shop, blacksmith shop, car machine shop, car truck shop, freight car erecting shop, planing mill, cabinet shop, upholstering shop, passenger car erecting and paint shop, passenger car repair shop. In order to allow of my giving an accurate idea of the system of shop requisitions and store orders in use covering the intake and output of material supplied to and delivered from the various shops, I will treat each unit separately.

LOCOMOTIVE ERECTING AND MACHINE SHOP.—In this shop new locos are built, engines are repaired and loco parts, coach trimmings, water tank parts, roundhouse drop jacks, etc., are manufactured and delivered to the stores department for shipment to the various points on the entire system. To meet the ever increasing demands for material to keep this shop moving I have no less than four petty stores in and about it, namely, petty general store located in centre of building; petty paint store located near tender and cab section in shop, also stock of steep plates, angles, tees, tyres, bolsters, wheels, etc., located outside west end of shops contiguous to boiler shop section, and stock of bolier tubes, dry pipes, superheating pipes, etc., located outside of building but immediately adjacent to tube furnaces and steam fitters' section. All of these stores are under charge of storemen and the business transacted in connection with them is carried on in precisely the same manner as if the deliveries to the shop were made from the general store building. Stock books are carried in each of them, together with day books, into which a correct record of all receipts and disbursements are posted, which at the end of each month are summarized and posted into stock book before the same is turned into the general store to allow of correct compiling of the regular monthly requisitions on the General Purchasing Agent. The forms of shop requisitions known and variously described as shop requisition form M and shin plaster, are in general use throughout the plant, so also is the form covering goods drawn for manufactured material. This form is made out and signed by the several foremen who are authorized to issue them and are given to the storemen who supply the material. These forms are then priced and classification item and class number added to them, after which record is taken of them and at the close of the day's business they are turned into the general store to be included with the various other lots received from all other petty stores on the plant and sent into the office the following morning, together with the forms covering disbursements from the general store to be posted or rather charged to the various accounts for which the material was required. These forms are made in duplicate; the foreman issuing them retains the duplicate while the original is delivered to the storeman. Eventually, however, both original and duplicate find their way to the office, and are there compared, one being a check against the other, so that you not only have the store form covering the material issued but the mechanical department's acknowledgment of its receipt. In this shop we have a group of three general disbursing accounts, namely, "Repairs," which of course gives reference to engine numbers, steam shovels, rotary plows, etc. "New Rolling Stock," which gives the equipment order numbers and

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PHILADELPHIA—LIVERPOOL.
Sailing from Philadelphia on Saturdays.

ATLANTIC TRANSPORT LINE.
NEW YORK—LONDON.
Sailing from New York on Saturdays.

DOMINION LINE.
MONTREAL TO LIVERPOOL.
MONTREAL TO AVONMOUTH DOCKS, (Bristol and Antwerp.)

LEYLAND LINE.
BOSTON—LIVERPOOL.
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RED STAR LINE.
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Summer Schedules in effect June 24th, 1906.

Abel I. Culver, 2nd Vice-President. **J. W. Burdick,** Pass. Traffic Man.

A. A. Heard,
Gen. Passenger Agent, - - ALBANY, N.Y.

"manufactured material" covering the numerous store orders placed on the shop. Under these headings the intake of material and the output of work is checked up, posted and cost arrived at. This is the system in general use and is a clear and simple method and if properly conducted by all interested offers a very accurate solution of the cost problem. While I say this is the system in general use there are exceptions brought about by the impracticability of applying it in conducting the department's business in connection with some of the shops, and it is for this reason I wish to treat each of the shops where such differences occur and which go to make up the whole, separately.

FOUNDRIES.—From our two foundries, grey iron and wheel, we turn out the majority of grey iron castings for the entire system and the total wheel supply for the road. Similar general accounts, namely, repairs and equipment, are handled here on same lines as in the other shops, with the exception that all requisitions covering such accounts are merged into store orders and placed on the foundry by storeman in charge. To make this condition plain I will endeavor to give you an outline covering the conditions under which our foundries are conducted, First of all, we aim at treating them on the lines we would an outside concern, so that we may exact from them the same (though we figure on better) service we would from outside foundries. They are operated by the car department, and the master car builder is directly responsible for their operation and output. At the same time the total intake of raw material and the output of finished castings are the property of the General Storekeeper, hence, the importance of checking and weighing the intake and output by store department employes. To take care of this work there are two foundry checkers and one foundry clerk whose offices are located in the scale room, through which all material must pass on its way to the cupolas, so that nothing goes into the cupolas without first crossing the scales and being correctly weighed by my foundry clerk. These weights are posted in a book kept for the purpose and are final; no forms are given covering this material, which consists of pig iron, various brands, broken wheels, scrap, coke, manganese, etc. The same is true of the various materials used in the foundries proper, such as sands, facings, flour, hay, etc.; in short, all material required for the operation of these foundries is supplied without the usual shop form M already referred to as applying in the loco, erecting and machine shop, so that the total cost covering intake of these foundries is made up from foundry clerk's scale and material issued records.

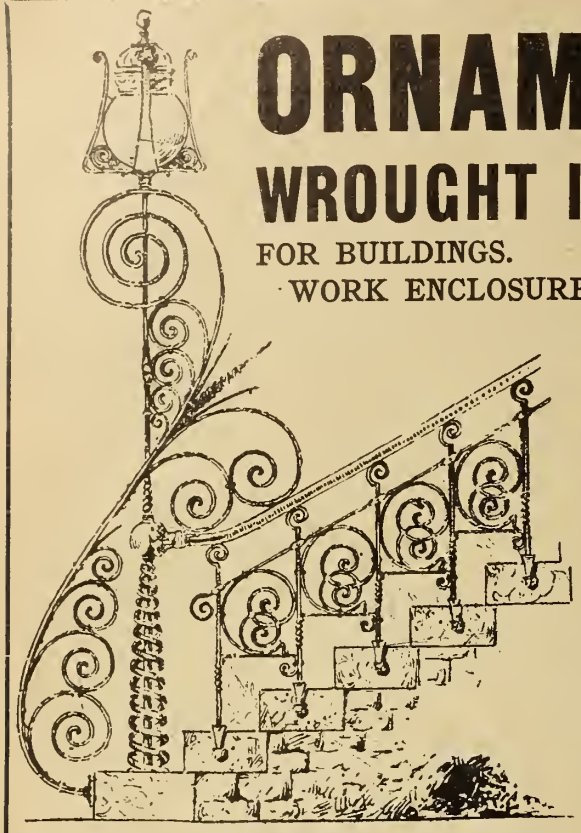
The output, allowing for shrinkages, is always a check on the intake, but, so that a correct record is arrived at, all castings made in the grey iron foundry when cleaned and ready for delivery are checked as to pattern numbers and weighed, and as each load is checked out o.k. on the scale the tally incorporating the various items making up the load is signed by my foundry checker (who retains a copy of same) and is handed back to the foundry foreman's representative as his authority for delivery. The loads referred to are lorry loads of about two tons; they are usually made up so as to allow their being delivered direct to the various shops for which they were ordered without rehandling after crossing the scales. By this, I mean castings for the coach shop would not be included with load for loco, freight car or switch shop, and in this way the foreman of shop receiving load accepts the check as to contents made by the foundry foreman, and my foundry checker and delivers to the latter the shop forms M covering the load, which forms show in detail the various accounts to which the different patterns are to be charged. The shop foreman arrives at this information from the tally slip already referred to which shows the requisition number covering the casting or castings made taken from my order placed on the foundry. This apparently complex or detailed method of handling the grey iron foundry output is made necessary from the fact that we use this foundry as a petty store in making deliveries to the different shops, it being inadvisable from a business standpoint to deliver the total output to the general store to be rehandled and delivered to the shops. The line shipments, however, are sent from the general stores accompanied with the necessary shipping slips and are here loaded into cars and forwarded to their several destinations.

The wheel foundry is handled on precisely the same lines with the exception that wheels for line shipments are not delivered to the general store, but are loaded from foundry platform to avoid unnecessary handling. As an illustration the following outline of the formula at present in vogue covering the conduct of business in these foundries, taken together with the foregoing remarks, will give a fair idea as to how we arrive at their intake and output. Take, for instance, this is a requisition which covers castings for new engines. This requisition is placed direct by the mechanical department with foundry clerk, who posts it same as if sent the general store and places store order on foundry to cover. When the work is finished the same is included on tally no. 1477 and delivered to the shop foreman who placed the requisition and who on receipt gives form M, covering it as previously described. This same method applies to new coaches and new freight cars, also repairs to locomotives and cars. With the line shipments, however, the original requisition is filed in the general store account of its calling for other classes of material, therefore an abstract only covering wheels and castings is sent the foundry; this latter, however, is treated by the foundry clerk in exactly the same manner as a regular requisition. All wheels are charged out at same price per 100 lbs., so also are ordinary castings excepting cylinders and wheel centres; cost is arrived at by adding pay rolls to value of material used plus shop expense charges. Defective castings and wheels are charged back to the foundry and account originally debited with them credited with value at which they were charged; the percentage, however, of defects are so trifling as to be barely perceptible in increasing the cost of castings or wheels from month to month.

THE FROG AND SWITCH SHOP is simply a detail of the general store. There are two men in this shop, one clerk and one material checker who look after business the same as if we carried the material on the platform of the general store building or on its shelves. In the first place no charges are made covering the intake of material used in this shop. By this I mean all the raw materials such as rails, various weights, steel plates, malleable, steel and grey iron castings, etc., are delivered without the shop form or requisition M and are worked up into the various devices manufactured in the shop. Requisitions from the line come in same as other requisitions and are filed in the general store files. Abstracts only for switch material are then sent to the frog shop clerk who handles them same as method referred to as in force in our foundries. If the material called for on these abstracts so placed should be of the standard quality such as an 80 lb. split switch or Eureka frog, the order would be filled from what we call a stock order; on the other hand, if it were for a diamond crossing, a special store order would be at once placed on the shop. To be plain, we place two types of orders on this shop, one known as the monthly stock order, and the other as special order; the former includes all standard track material and the latter unusual items or such material as we could not possibly anticipate.

Our average monthly shipments of split switch outfits complete (which includes the frog and stand) during the past 12 months has been 50 sets. From this you will understand how we arrive at our stock orders; then again, during the past 12 months, we have shipped the line 50 diamond crossings, all of different angles, together with a very large number of frogs of unusual angles. By this latter I mean all frogs other than those of our standard spread which are for main line, 1 in 9, and sidings 1 in 7. These are all expensive devices which it would be out of the question to think of stocking so that the special order referred to is issued to cover such as these items.

The form of store order, stock book, receiving and order books kept in this shop or store are the standard records used throughout the plant. From the foregoing you will note I get nothing for the stock carried to keep this shop going until the finished article is turned in and ready for shipment, and while a check is kept of the intake for stock book purposes it is not counted upon in any way as being necessary to check against the actual output of the shop. So much for the intake, now as regards the output; this is arrived at in the following manner—all material turned over to my representative is covered by what is known as a shop receipt. This is practically the shop advice of the completion of any particular order they may have finished. This is carefully gone over by my checker and is signed in duplicate. The latter is turned back to the shop foreman while the original is carefully posted in the proper shop material receiving book. At the end of each month the entire output of the shop is checked up under the following headings—crossings new, crossings repaired, etc. This arrangement is made necessary from the fact that most of the work done in this shop is on a contract basis. Take for instance item 4 for Eureka spring frogs. All labor worked on this type of frog is charged on the time card to no. 4. At the end of the month the total value of labor charged to this number on the distribution of labor sheets represents what it cost to turn out so many of these frogs, to this is added the amount of rails, steel plate, castings, rivets, etc., entering into the frogs plus the shop expense charges and you have the cost price at which these frogs are to be charged out at end of each month. This arrangement, while differing in detail from some of the other shops, is in the main like them, particularly so in so far as pertains to my stock getting full credit for all work turned out of it. The completion of a store order in this shop, unlike the other shops, does not in any way affect the cost of the material it covers, that is, the account numbers already referred to are what we figure on in arriving at costs. The store order simply covers a complete shipment. Until the beginning of 1905 orders were placed on this shop in accordance with the account numbers already referred to, but it was found no effort was made by the shop people to allow of our making complete shipments to the line. By this I mean one month a big showing would be made in turning out certain stands, the following month split switches and so on; in this way shipments were made incomplete and gave rise to all sorts of complaints. One man would have a frog, another would have a switch stand and another a split switch. Of course if they had none of this material on hand they would possibly say nothing, but, whoever heard of the section foreman who passes a frog on his section every day, which he is holding waiting on the stand and switch to allow of his putting in a siding or spur, keeping quiet? Why a storekeeper shipping in this manner simply courts turmoil, so that to offset this trouble and ensure complete shipments being made the store order, whether stock or special order, is placed. These orders are sharply followed up by my material



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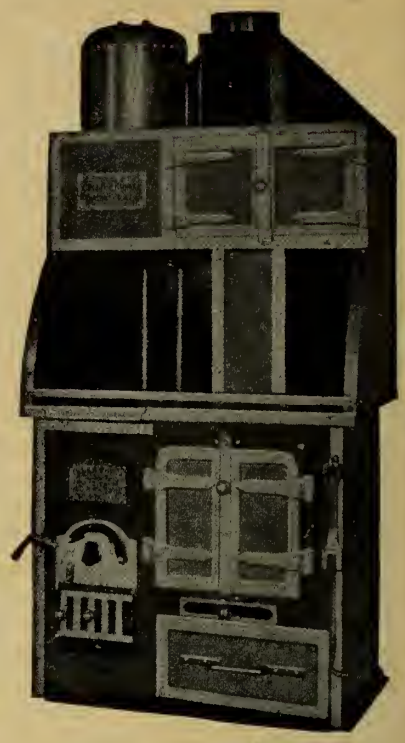

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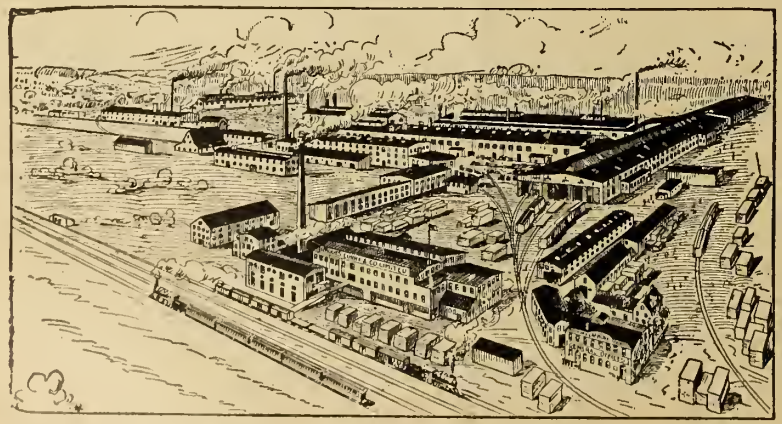

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Look The Illinois Central map over and consult

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tracers and nothing but complete sets or orders are now turned in and shipped.

BLACKSMITH SHOP.—From this shop the forgings for our total new equipment orders are turned out; also the bulk of car forgings required in the keeping up of repairs of freight and passenger rolling stock for the line. We have here bulldozers and oil furnaces, together with the various other machinery and equipment, to allow of our turning out the iron work for 600 standard box cars per month, together with new coaches and sleepers in the car side alone, while the loco side is provided with the necessary equipment to allow of the prompt turning out of new engines and loco repairs. These few facts are simply cited to give some idea as to the magnitude of the task attaching to the effort which is necessary to follow anything like the total intake of this shop on the regular lines followed in other shops.

You will note from the location of material about this shop the opportunity offered to get at it without the necessary requisition form. There are not only doors every few yards, but windows, and contract men are not particular as to how they get material to work with, it is simply a matter of "get it" with them, never mind the red tape. Now if we were only building cars from the output of this shop the intake question would be of little concern, but, as we are repairing and manu facturing for the line, it becomes absolutely essential we have accuracy not only in connection with the intake of this most perplexing problem, but absolute correctness in checking the output. So far as pertains to deliveries from our regular iron rack or house no difficulty is encountered, as the business here is handled in exactly the same manner as if issues were made from the general store.

There is in this building an office with phone communication with all petty stores, offices and shops, together with a good store staff, including proper checkers and stock keeper. All issues made from this rack are properly covered by the regular shop requisition form M, which is priced, classified and sent through the regular channel same as already described. The stock here consists of all brands of iron, from the finest to the ordinary common, all in standard market lengths; tool steel in bewildering varieties all painted or marked for identification, also spring steel, gas pipe and chain, and is used almost exclusively for the filling of line requisitions and repairs in the various shops. The iron house, however, is but a very small part of the iron problem at our works, so much so that further remarks by me in connection with it are unnecessary; it is thoroughly organized and can take care of itself.

Now to get at the greater field of iron deliveries: Your attention is called to the general lay-out of the stock. In the average standard 30-ton box car we have about 5,200 lbs. of wrought iron or mild steel, in a standard coach or diner about 23,000 lbs. We have orders on the shops at present for thousands of the former and something like a hundred of the latter. This will give you a fair idea of the amount of stock we must carry for these purposes. In ordering iron for new rolling stock we make it a practice of ordering iron cut to length for various purposes required, that is, in ordering arch bar iron instead of calling for standard bars we get pieces. The same applies to all other forgings and to allow of the various sizes and kinds of iron being piled together, always keeping in mind the necessity of locating these piles convenient to the various machines through which they must pass; that is, truss rods near the upsetting and screwing machines carry irons near the bulldozers, and so on. You will at once recognize the difficulties one must expect to meet in endeavoring to check in the requirements of this shop. If a blacksmith shop could practicably be designed on the lines of a foundry having only one intake port to correspond with the cupolas the intake problem would have no terrors, but, as this is an impossible condition, we are forced to grapple with a situation unique in the practice of material deliveries to railway shops.

The argument has been advanced that every pound of iron entering a smith shop should be weighed in and the finished product as it goes out should undergo the same ordeal; this so that some statistical fiend might arrive at the actual waste in scalings, turnings, borings, etc. This proposition sounds all right, and might work very nicely at a small shop where they use about a ton or two of iron a day, but in a plant like ours its introduction would be practically disastrous. Take, for instance, bulldozers with dies all placed waiting for raw stuff to be weighed out piecemeal to them; think of the furnaces in connection with them getting away with fuel oil to the tune of 2,000 to 3,000 gallons per day. the piecework men with their hands tied and you have some idea of what this method would mean. And then the output: Our company wants all the cars it can get into service and as quickly as it can get them to cope with the ever increasing business which the unprecedented prosperity of the country has made necessary. At our present rate of building we are turning out a car every 20 minutes. Think of what weighing the output would mean to this business alone, I venture to say a reduction in the output of three to four cars per day would be the result. Would it pay or is there not some other way in which the intake and output of this plant can be taken care of which will give the same results without clogging the wheels of progress? Yes, there is, and I will endeavor to outline it. Take, for example, an order is placed for 1,000 standard 30-ton box cars; the bill of material incorporating all items entering into the construction of these cars is sent to me by the Master Car Builder. This statement is checked and marked and all items other than what we manufacture ourselves, such as wheels, castings, etc., are made on a special requisition placed with the General Purchasing Agent. The original bill of material is then sent to my storeman in charge of business in the freight car erecting shop, and is there posted in a special receiving book which is kept for the purpose; it is then returned to the general store for filing. When the material starts coming in (you may have material coming in on several orders of freight cars at the same time) it is weighed, checked and compared with the tallies which accompany all shipments whether they are received in cars or by city teams. When all material is in the lines opposite each item bear a tick mark or o.k. Now when it is decided to start building this order the number of cars turned out each night is made up by my man and compared with the car foreman's record, and certain material such as Westinghouse air brake material, roofs, truck bolsters, springs and iron are then covered by an order from the car foreman to my storeman, who posts them in his output book and forwards them to the general store to be sent along with the disbursements to all other shops, and are delivered to the office to be charged up to the proper equipment account. This same system of getting at the intake and output of this shop applies to new coaches, sleepers, diners and to new engines.

PAINT STOCK.—Our paint store proper is located in coach shop 1; at the same time we carry paints in small lots put up in cans ready for use in our general store. This stock, however, is carried more for line requirements than for use in the shop, though it is when necessary available for both purposes. All paints, oils, varnishes, dryers, etc., are first received at the general store, where they are properly checked and weighed; they are then sent along to the paint petty stores in connection with the shop for which ordered, that is, if for coach work it goes to the main paint petty store above referred to, if for freight car work it goes to the freight car erecting shop where we have a large capacity for oils, etc., while if for loco work it is delivered to the loco petty paint shop described in the earlier part of this paper. The requisitions covering these various stocks are placed in the case of new coaches and freight cars by the Master Car Builder and if for locos by the Assistant Superintendent of Motive Power, while requirements for repairs whether in our shops or on the line form a part of my regular monthly requisitions, the whole being taken care of as follows—Deliveries to the various shop petty stores are made on regular shop form which read for paint stock, the issues from these stores to the different accounts are posted or made in regular stock delivery book. This book is totaled at the end of each month and sent in to the office to be included with the various other disbursements. A check with the actual stock on hand and stock books kept in these stores is made monthly so that any difference there may be between the stock carried and disbursed is promptly adjusted. For line shipments proper requisitions are received and shipping slips covering are made in regular manner which are afterwards sent to the office to be invoiced to the various outside departments to whom shipments are made.

LUMBER STOCK.—Our system of delivering lumber to the mill and shops was described in a paper published in THE RAILWAY AND MARINE WORLD for March, so that I will not deal at any length with this item more than to say that apart from the check which we get from the shop requisition form M, covering all issues to the various shops and the regular shipping form which take care of all line shipments. We have the Master Car Builder's bill of material showing in detail every stick of lumber entering into the various types of freight and passenger equipment to compare with our shop form as a further check; this together with our regular lumber stock book leaves little room for leakages and I may safely say of all the varieties of material we carry to keep our large shops moving I am quite satisfied any increases in my stock balance which occur from time to time are not traceable to this source. Finally all material deliveries to shops are covered either by the regular shop requisition form or material delivery books, while the total output is arrived at by checking up the shop receipts which cover goods manufactured and delivered to the general store coupled with the direct charges made against the various equipment orders and repair accounts.

The foregoing paper was read before the Railway Storekeepers' Association at its recent convention.

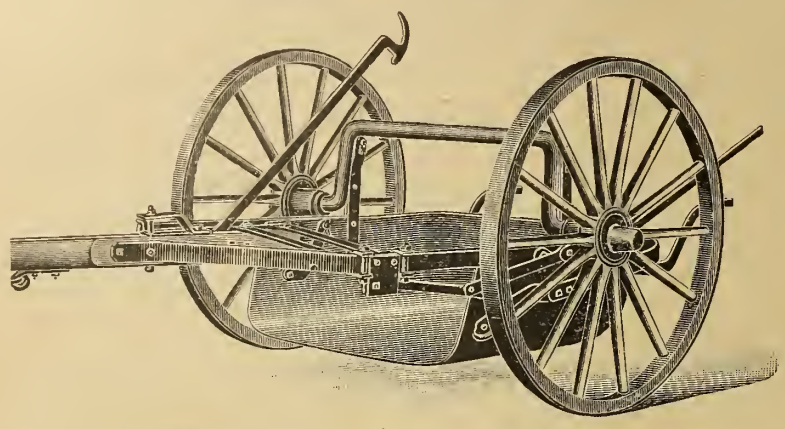
J. L. Gogerty has been appointed Superintendent Montreal Terminals G.T.R., including lines to St. Lambert and Lachine and the Jacques Cartier branch. He will have jurisdiction over all employees in yard and switching service. Office, Point St. Charles, Que.

The C.P.R. recently submitted to the Board of Railway Commissioners supplements 1, 2 and 3 to its local standard passenger tariff C.R.C. no. 8, applying in Alberta and Saskatchewan territory, and being on a 4c. per mile basis. The Board has refused to approve of more than a 3½c. per mile basis for the territory referred to.

New South Wales, Australia, is to have a Chief Railway Commissioner and two assistant commissioners in future, instead of three commissioners as at present, owing to disagreements among the present appointees. Applications will be received for the Chief Commissionership. The Premier stated that the best applicant, from any country, will be appointed.

THE TORONTO PRESSED STEEL CO.

TORONTO, CANADA LIMITED



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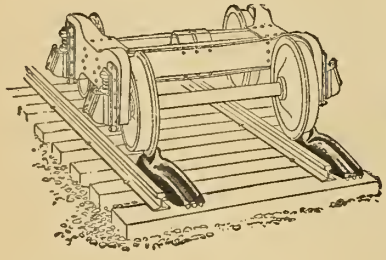

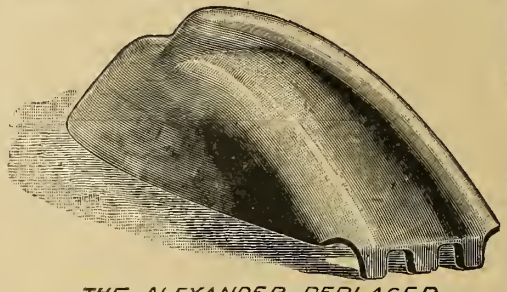

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National Transcontinental Railway Construction.

The viaduct at Cap Rouge, Que., on district B of the eastern section, will have a total length of 3,335 ft., and will consist of 33 towers, each 40 ft. in length; 29 spans of 60 ft. each, one span of 125 ft. and one span of 150 ft. The viaduct will be a single track one, the girders being spaced 9 ft. centre to centre, and the base of rail will be 165 ft. above high water in Cap Rouge River. The weight of the steel superstructure when erected will be about 4,200 tons. The Dominion Bridge Co., Montreal, has the contract.

The Commissioners have had under consideration tenders for the construction and erection of steel superstructures and floor system, with ties and guard rails complete, for bridges at River Aux Pommes (Sept. 1); River Jacques Cartier (Nov. 1); crossing C.P.R. (Dec. 1); River Portneuf (Dec. 1); River St. Anne (Jan. 1, 1907); River Noir (Feb. 1, 1907); River Charest (Mar. 1, 1907), and River Batiscan (April 1, 1907). The dates in brackets are the dates upon which the superstructures are required to be ready for shipment.

A report from Ottawa Aug. 29, stated that the tenders of the Dominion Bridge Co., Montreal, and of the Locomotive and Machine Co., of Montreal, were the lowest, and that the contracts would probably be divided. These bridges are for the section of the line between Quebec and La Tuque, Que., now under contract.

GRAND TRUNK PACIFIC RY.

C. Schrieber, C.M.G., Consulting Engineer to the Department of Railways, returned to Ottawa, Aug. 23, having made a lengthened trip of inspection over the route of the G.T. Pacific Ry. In an interview he said:

"I am satisfied that in the G.T. Pacific Ry. when it is completed, the people of Canada will have the cheapest transcontinental line in existence. From the Rocky Mountains to the Atlantic seaboard it will show a maximum grade of 4-10ths of 1%, eastbound, and 5-10ths of 1% westbound. The company itself expects to obtain an equally level location across British Columbia to its Pacific terminus. I am satisfied that it will get through with a maximum gradient not exceeding 1%, and anyone who knows the first thing about railway building and the existing routes through the Rockies can readily appreciate what that means, especially in the haulage of heavy traffic. The G.T.P. Ry. has 16 survey parties now in the field in British Columbia and the company will be in a position to let some contracts this season on this section, probably at the Port Simpson end, as it is the most accessible. I drove 700 miles across the prairies from Portage la Prairie to Edmonton following the located route of the new line. From 100 to 120 miles of this will be laid with rails this fall, and by the end of next year the G.T.P. ought to have its track through to Edmonton. Their greatest difficulty lies in the scarcity of labor. In one stable I saw 20 horses idle because it was impossible to secure drivers to handle them. It is simply wonderful the way settlement is already flowing in along the route that the new line is to follow. Shacks of all sorts are being put up and land brought under cultivation. The company has truly secured an excellent line across to Edmonton; it is practically a straight line all the way from Winnipeg."

There are reported to be over 12,000 men at work on different sections of the line, and that satisfactory progress is being made with the work under contract. On the Lake Superior branch from Fort William to Lake Superior Junction, Ont., construction trains are being operated for short distances, and over 100,000 ties have already been delivered. The equipment for two tracklaying machines has been received at Fort William. Between Winnipeg and Edmonton the contractors are pushing work ahead with the greatest possible speed, but they are somewhat hampered by the scarcity of labor.

An agreement was reached at a meeting of the Edmonton City Council, Aug. 18, by which, in return for a bonus of $100,000, the G.T.P. undertakes to establish within three miles of the public offices, its yards, workshops and other terminal facilities, and to erect a station south of the Canadian Northern station, if a union station could not be arranged for. The city also agrees to purchase certain right of way required, which it is estimated will cost another $60,000.

Plans have been filed for 77 miles of line west of Edmonton, Alta., and tenders will shortly be asked for grading on this distance. F. M. Morse, Vice-President, proposes to go over the projected route through the mountains as far as the coast during the fall, and upon his report, on his return, the final selection will depend. A survey is being made by H. S. Sprague and A. L. Kepper through the Caribou country, to determine whether there is a satisfactory route through it, instead of the present projected one around it. If such a route can be located it will materially shorten the distance between Winnipeg and the Pacific coast. Survey parties are also working east and west from Lorne Creek, on the Skeena River, and from Morricetown in the Bulkeley Valley.

The Dominion Parliament at its last session passed an Act authorizing an extension of time for the construction of the Pacific Northern and Omineca Ry., and authorizing the construction of a railway from the junction of the Skeena and Copper rivers to the junction of the Bulkeley and Telkwa rivers. It is likely that the first construction in connection with the G. T. Pacific Ry. on the Pacific coast will take place under this charter. (Aug., pg. 473).

Canadian Northern Railway Construction.

Canadian Northern Quebec Ry.—At the last session of the Dominion Parliament the Great Northern Ry. of Canada, one of the lines amalgamated under the above title, was granted an extension of time for the construction of its line between St. Jerome, St. Sauveur or Lachute, and a point on the Ottawa, Northern and Western Ry., in Wright county, for a further period of five years.

A contract has been entered into between the Dominion Government and the Chateauguay and Northern Ry., another of the lines amalgamated under this title, for the construction of a railway from Hochelaga Ward, Montreal, to the Great Northern Ry. of Canada, near Joliette, Que., passing at or near L'Assomption, together with a spur line into that town. The total distance covered by the contract is 42 miles. The line from Montreal to Joliette, 36.0 miles, has been constructed and in operation since early in 1904.

Canadian Northern Ontario Ry.—The Board of Railway Commissioners has approved of plans for the construction of bridges on the Key River and Little Key River, and for location plans for some miles of the line from Sudbury northerly.

Canadian Northern Ry.—The location of the locomotive and car shops of the company is at the corner of Main and Assiniboine streets, Winnipeg, Man., and the accommodation provided there is inadequate to the growing requirements of the line. It is reported that land has been purchased at Fort Rouge with a view of erecting new locomotive and car shops at an early date.

Notice has been given that the Northern Extension Ry. has deposited plans at Ottawa for the construction of a bridge across the Assiniboine River at Winnipeg. The N.E. Ry. is a Canadian Northern Ry. charter granted by the Manitoba Legislature in 1904, and authorizing the construction of a railway from Oakland, northerly or northwesterly to the boundary of the province, with branches to Makmak, Ochre River and Winnipegosis stations on the C.N. Ry.; westerly to the western boundary of the province; easterly or northeasterly points at or near Lakes Manitoba, Winnipeg and Winnipegosis or waters connected therewith; and a line or lines from Winnipeg, or from any point on any of the lines mentioned through the rural municipality of Springfield to the eastern or southern boundary of the province.

The principal work which the company is pushing at the present time is the construction of the branch from Hartney, Man., to Regina, Sask. Every effort is being made to have the branch in operation this year. The importance of the work is apparent when it is considered that the Qu'Appelle, Long Lake and Saskatchewan Ry., which the company has just acquired, has no terminals in Regina, and has no physical connection with the Canadian Northern Ry., although the latter crosses it near Osler, and has a station at Prince Albert. The connections will be made at Prince Albert and near Osler, so that traffic can be transferred from the line to the C.N. Ry.

A Winnipeg despatch of Aug. 28 stated that an arrangement had been closed between the C.N. Ry. and the G.T. Pacific Ry. for the construction of a line to Hudson Bay, Regina being mentioned as the southern terminus. D. B. Hanna, Third Vice-President C.N. Ry., stated Aug. 29 that there was no foundation for the report

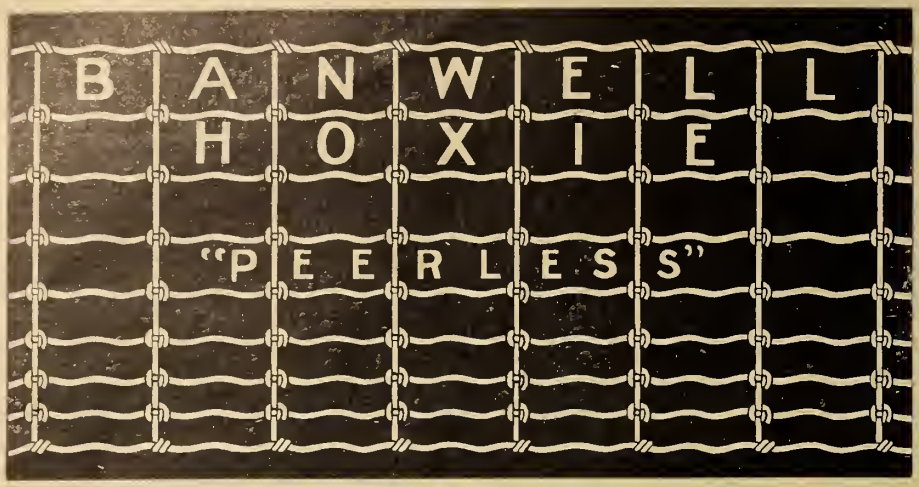
A special meeting of the Prince Albert, Sask., City Council was called for Aug. 20, to approve for submission to the general vote, a by-law granting $25,000 towards the construction of a bridge across the Saskatchewan River at that city.

President W. Mackenzie, and a number of C. N. Ry. officials visited Edmonton, Alta., Aug. 16. Mr. Mackenzie stated that nothing definite had been done in reference to the project for constructing a union station there. The C.N.R. was not averse to the erection of a union station with the C.P.R. or the G.T. Pacific Ry.

Forty carloads of steel rails have arrived at Edmonton for laying on the Morinville branch, upon which 30 miles of grading has been completed. This branch will, it is said, be ultimately extended to Athabaska Landing. (Aug., pg. 467.)

The Overseas Mail.

The C.P.R. has put on a special train in connection with the Imperial mail service between Great Britain, Japan and China, which will make the distance between Quebec and Vancouver in 93 hours. The train consists of the necessary mail and baggage cars, with not more than three sleepers and a dining car for through passengers. It will make only a few stops at the principal points, and will be run only on the arrival of the mail steamers at Quebec and Vancouver respectively. The first train was due to leave Quebec on the arrival of the S.S. Empress of Ireland, Aug. 31. At Vancouver the mails and passengers are to be transferred to the company's steamers there, and the schedule for the first trip shows that the mail will be landed at Hong Kong Sept. 21, or 28 days after leaving Liverpool. The first return train will leave Vancouver Sept. 17, and will make connections with the Empress of Britain at Quebec. The C.P.R. at present operates two daily transcontinental trains each way, the Imperial Limited and the Pacific Express, and this Overseas Mail will be an additional train making one trip a month each way. The time occupied, 93 hours, is about five hours less than the time of the daily trains.



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"	"	5.00	"	"	119.85,	"	"	"	40.81	"	"	100.00
"	"	5.50	"	"	131.80,	"	"	"	44.89	"	"	110.00
"	"	6.00	"	"	143.80,	"	"	"	48.98	"	"	120.00
"	"	6.50	"	"	155.80,	"	"	"	53 05	"	"	130.00
"	"	7.00	"	"	167.80,	"	"	"	57.16	"	"	140.00
"	"	7.50	"	"	179.75,	"	"	"	61.22	"	"	150.00
"	"	8.00	"	"	196.70,	"	"	"	65.28	"	"	160.00

Purchasers who do not undertake to go into residence on the land are required to pay one-sixth of the purchase money down, balance in five equal annual instalments with interest at the rate of 6 per cent. per annum.

Interest at six per cent. will be charged on overdue instalments.

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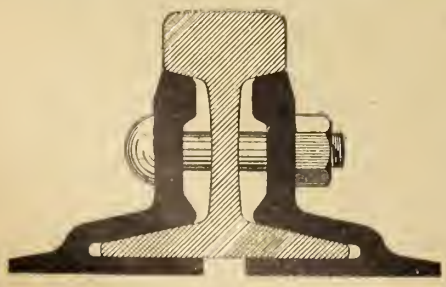

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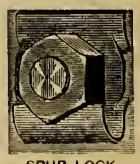

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Magog, Que.—The firm of Poupore, Smith & Neil, composed of W. J. Poupore, President of the W. J. Poupore Co., Ltd.; G. C. Poupore, of Montreal; G. E. Smith, and W. B. Neil, of Sherbrooke, Que., have been given the contract for the construction of a line to eliminate the big trestle at Magog, Que. The work consists of some 10 acres of clearing, 20,000 cub. yds. of common excavation, 350,000 cub. yds. of borrow for filling, as well as some rip-rap, masonry, ballasting, tracklaying, etc. The contract was let on July 31, work began on Aug. 6 and is to be completed by Aug. 1, 1907.

Quebec-Montreal Bridges.—It is expected that tenders are to be asked for at an early date for the reconstruction of the 48 bridges on the line between Quebec and Montreal. The masonry substructures and steel superstructures are to be constructed to carry the heaviest traffic.

Place Viger Hotel Enlargement.— An enlargement of the Place Viger hotel, Montreal, is contemplated, the proposal under consideration being to construct two L shaped wings extending back from the main building with a courtyard in the centre. The part of the present building occupied for the purposes of the railway station will be given over to the hotel, while the station offices will be located at the end of one of the new wings.

Montreal Northerly.—The Quebec Government has asked the C.P.R. to construct a line northerly from Montreal to open up the agricultural and mining lands existing there.

Guelph and Goderich Ry.—A train service was put on the line as far as Millbank, 30 miles from Guelph, at the end of August, and work beyond this point is reported to be nearly completed. A contract has been let to F. Gutteridge and H. Edge, of Seaforth, Ont., for the erection of a passenger station, freight house and round house at Goderich.

A contract has been let to B. Gibson, Toronto, for the grading and other work on the branch line from Linwood to Listowel, Ont. (Aug., pg. 471).

Temiscamingue Colonization Ry.—C. P. R. engineers are making a survey for an extension of this line now terminating at Temiscamingue, Que., to Ville Marie, Que., about 50 miles. The proposed route is along the shore of Lake Temiskaming to the Opemican River, and thence by the nearest route to Ville Marie. While this is the present objective point it is said that the line will be ultimately extended to the G.T. Pacific Ry.

Moose Jaw Northerly.—A despatch from Moose Jaw, Sask., dated Aug. 21, stated that an outfit belonging to Contractor Lamb had arrived and had been set to work grading for the line from that point for 50 miles northerly. It is proposed to hire as many teams as possible from farmers along the route, in addition to the contractor's teams, so as to push on with the work as fast as possible. (Aug., pg. 471).

High Level Bridge at Belly River.—We are advised that the plans for the projected bridge across the Belly River, near Lethbridge, Alta., have not been completed. This is a large piece of work, and the plans require a great deal of consideration before being finally approved. (Aug., pg. 471).

Fernie Station.—The plans for the new station at Fernie, B.C., provide for a building having a frontage to the tracks of 105 ft. 6 in., and a depth of 29 ft., except in the centre where it is 37 ft. The building, which will be a single story with a second story arranged in the gables and high pitched roof, will be constructed of frame on the ground floor, the rest of the building being shingled. On the ground floor there will be a waiting room 30 ft. by 27 ft. 6 in., connected by a passage with a ladies' waiting room, 16 ft. by 27 ft. 6 in. To the front of the passage is the office, 14 ft. square, fitted with standard operator's table, and to the rear the lavatories. Adjoining the ladies' waiting room is the baggage room, 18 ft. by 27 ft. 6 in., and then comes the express room, 24 ft. by 27 ft. 6 in.

Motor Cars for Intercolonial Ry.

The Department of Railways has decided to put on a motor car service on a number of sections of the Intercolonial Ry., and the Prince Edward Island Ry. The Minister of Railways, M. J. Butler, the Deputy Minister, and G. R. Joughins, Superintendent of Motive Power, have just completed an inspection of the lines and discussed the question of the style of car to be adopted and other matters in connection with the service. Mr. Joughins has sailed for Great Britain, and will proceed to Paris, France, for the purpose of inspecting two types of motor cars which are being successfully operated there, for the purpose of reaching a decision as to the type which will best meet the requirements of the service required in the Maritime Provinces. Two types of cars are under consideration, each of which are equipped with a self-contained motor, and experience has shown that they are economical in operation. The Minister of Railways in a conversation at Charlottetown, Aug. 21, stated that the highest perfection in this motor car service had been attained in France. Compressed steam is the motive power used in the cars, for the purchase of which Mr. Joughins was about to negotiate, and experience had shown that these cars were admirably adapted for suburban service. After a few cars had been brought to Canada he hoped that some industrial establishment would take up their manufacture in Canada. It is simply a question of structural steel and machinery. We have the structural steel facilities in Canada, and machine shops equal to any, and there is no reason why the work cannot be done here. Among the points contemplated for these suburban services are: Halifax, St. John, Sydney, Sydney Mines, Pictou, Stellarton, New Glasgow, and probably Moncton and the Point du Chene, Pugwash, Dalhousie, Campbellton and several branches in Quebec; between Cardigan and Montague, and probably other points in Prince Edward Island. Five of the cars are expected to be in operation early next spring, and the system will be extended gradually if conditions permit.

The Quebec, Montreal and Southern Ry. Co. is the title of the company organized under Delaware and Hudson Rd. control, by the authority of an act passed last session of the Dominion Parliament, to take over the lines formerly operated as the Quebec Southern Ry and the South Shore Ry. The officers and directors for the current year are: President, D. Wilcox, New York, President D. and H. Rd.; Vice-President, A. I. Culver, Vice-President D. and H. Rd.; other directors: Senator Beique, Hon. R. Lemieux, Geo. Hart, Montreal; Treasurer, C. A. Walker, Treasurer D. and H. Rd.

G. H. Richardson has resigned his position as Assistant City Engineer, Ottawa, to act as contractor's engineer on a section of the National Transcontinental Ry.

The Minudie Coal Co., which has practically completed a railway from River Hebert to its mines in Nova Scotia, has at present one locomotive and six flat cars rented from the Intercolonial Ry. It has about concluded negotiations for a locomotive from the I.C.R., and is making arrangements for the purchase of passenger coaches and flat and box cars.

ELECTRIC RAILWAYS.

Projects, Construction and Betterments.

Brantford and Hamilton Electric Ry.—A contract for grading has been let to F. H. Dickenson, and contracts are reported let for rails to the Dominion Steel Co., Sydney, N.S.; for ties to the Manitoulin Lumber Co., and for electrical equipment and supplies to the Canadian Westinghouse Co. The plans and profiles of line were approved by the Government and were registered at Hamilton Aug. 17. On the following day application was made by the officers of the 13th Regiment for an injunction to prevent the company from interfering with the rifle range. No objection is taken to the line, but it is pointed out that the line will pass only about 75 yards behind the second tier of targets, and that proper safeguards are not provided for the safety of the trains.

The line will run from Hamilton to Brantford, about 24 miles, passing through Langford, Alberton and Ancaster. There will be few bridges, but some rather heavy grading, the line having been laid out on steam railway practices, long tangents and slow curves, with the lowest possible gradients. The heaviest gradient will be one of 2½ % climbing the mountain at Hamilton, and there will be one 4° curve. There will be but five curves in 19 miles, and one-third of the total distance is covered by a tangent of eight miles. The track will be laid with 80 lb. steel, and it will be rock ballasted throughout. The electrical installation will be the Westinghouse system, d.c. with stub-stations. The cars will be 56 ft. long, and each will be equipped with four 65 h.p. motors. It is hoped to complete the grading by Jan. 1, and to have the line in operation by June 1, 1907. I. K. Pierson is Chief Engineer in charge of construction. (See Hamilton, Ancaster and Brantford Ry. July, pg. 413).

British Columbia Electric Ry.—J. C. Buntzen met the reeves of the municipalities interested in the proposed tram line to the Chilliwack Valley and discussed the entire matter with them recently. A form of by-law was agreed upon, which, if adopted by the several municipalities of Chilliwack, Matsqui, Sumas, and Surrey, will give the company freedom of taxation for 10 years for the projected line. (July, pg. 413).

Buffalo, Lockport and Rochester Ry.—This company is a combination of the Albion Electric Ry., the Albion and Lockport Ry. and the Albion and Rochester Ry., and has under construction an extension of 54 miles from Rochester to Lockport, N.Y. A private right-of-way has been secured, excepting in the towns, where the necessary franchises have been obtained. The contract calls for the laying of a double track line, but at present it is intended to lay a single track only. From Lockport the company expects to use the tracks of the International Traction Co. into Buffalo. The line is expected to be completed and open for traffic in May next. (July, pg. 413.)

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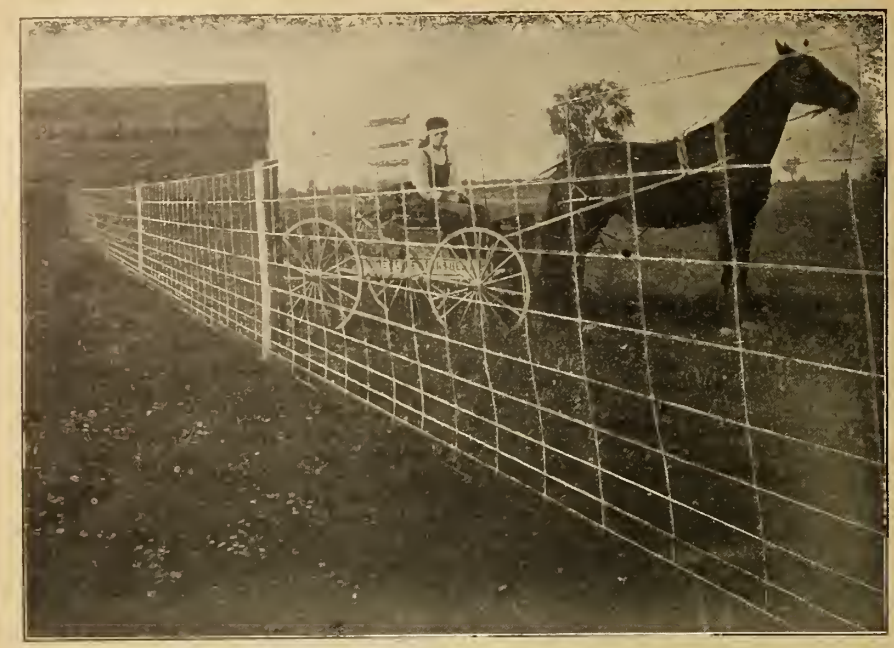

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Grand Valley Ry.—We have been advised that the company is improving its line as fast as possible and that it was expected to have a start made at an early date with the extension to St. George, Ont. The work will be done by a local contractor. (Aug., pg. 477.)

Hamilton and Guelph Junction Ry.—A by-law granting a right of way for the projected electric railway, was referred for consideration to the board of works and finance committee by the Hamilton, Ont., City Council, Aug. 22. (July, pg. 413).

Hamilton, Grimsby and Beamsville Electric Ry.—The directors have under consideration projects for diverting and improving the company's railway at Red Hill, Ont., for extending the line to St. Catharines, Ont., and generally improving the line.

Hamilton Terminal Co.—J. M. Gibson, J. R. Moodie, W. C. Hawkins, W. W. Osborne and G. H. Levy, of Hamilton, Ont., have been incorporated under the Ontario Companies' Act, with a capital of $200,000, and offices at Hamilton, for the purpose of establishing a terminal station in the city and to maintain tracks within and around the company's buildings to be used for such terminals; to enter into agreements with the city with reference to such tracks and terminal station. The Hamilton City Council has passed a by-law granting the company a franchise. The company will erect a building to cost $150,000 and give other electric railways entering the city rights over its tracks.

Hamilton, Waterloo and Guelph Ry.—The Hamilton, Ont., City Council, at a meeting Aug. 22 passed a by-law under which the line is to be completed to Galt by Dec., 1907, and to Guelph by Dec., 1908. The company agrees to give running rights over its line to other companies and is exempted from taxes for ten years. (Aug., pg. 477).

Montreal Street Ry.—After considerable negotiation, it has been agreed that the company will lay its tracks prior to the City Council doing paving work in the city, and a decision has been reached as to the streets upon which the lines are to be extended during the current season.

Quebec Ry., Light and Power Co.—The construction of the dam 84 ft. in height on the Montmorency River, about half a mile above the falls, has been completed. The dam is 67 ft. 4 in. wide at the base and 12 ft. wide at the crest, and will hold back 52,000,000 cubic ft. of water. The plant being installed in connection with this power will consist of a 1,500 k.w. alternating current generator, driven by a 2,225 h.p. turbine wheel. It is expected to have the plant completed by Dec. 1.

Southwestern Traction Co.—The Ontario Railway and Municipal Board has appointed R. J. Parke, an electrical engineer, to inspect the electric railway between London and St. Thomas, Ont. We are advised that this is not an extraordinary inspection, as newspaper items would suggest, but is the inspection required by sec. 163, Ontario Railway Act, 1906, before railways subject to the jurisdiction of the province can be opened for traffic. (July, pg. 413).

Toronto Ry.—The company has laid a track along Dupont St., west of Bathurst St. The question of relaying the tracks on King and Queen streets will be brought before the Railway and Municipal Board by the city, and an order to compel the company to do the work will be asked for. At several points the condition of the paving immediately alongside the rails is in a dangerous state, and the holes were, on Aug. 28, being temporarily filled with concrete.

Western Central Ry.—Negotiations are in progress with the municipalities for the construction of a line from London to St. Mary's, Ont., and a proposition is under consideration by which the St. Mary's Town Council will subscribe for $50,000 of the company's stock, in consideration of the location there of the power house and car barns. Reconnaissance surveys have been made for the line, which it is proposed to construct via Bryanstown, through London township, instead of via Thorndale as at first projected. A. E. Welch of the Southwestern Traction Co., London, Ont., is carrying on the negotiations, and A. Hickling, of London, Eng., a member of the syndicate constructing the Southwestern Traction Co., has been in London, Ont., for some time in connection with the project. Both are provisional directors of the W. C. Ry. Co. (April, pg. 217).

Windsor, Essex and Lake Shore Rapid Ry.—We were advised, Aug. 18, that the contractors were pushing the completion of this line from Windsor to Kingsville, Ont., as fast as possible. The present organization of the company is as follows: President, J. Piggott, Chatham, Ont.; First Vice-President, W. L. Wilson, Port Huron, Mich.; Second Vice-President, Dr. Jas. Brien, Essex, Ont.; Secretary, W. T. Piggott, Chatham; Treasurer, W. C. Crawford, Tilbury, Ont.; other directors: M. Wilson, K.C., Chatham; Hon. E. G. Stephenson and Dr. P. Heseltine, Detroit, Mich. The Executive Committee consists of the President, Secretary, Treasurer and M. Wilson, K.C. The company has appointed as General Manager, W. N. Warburton, heretofore Manager of the Chatham, Wallaceburg and Lake Erie Ry., and formerly connected with the Niagara, St. Catharines and Toronto Ry. (Aug., pg. 479.)

The Winnipeg Electric Street Ry. Co. is constructing a second track along Sherbrooke St., Winnipeg

Electric Ry. Finance, Meetings, Etc.

Berlin and Waterloo Ry.—The Berlin, Ont., Town Council has taken steps to expropriate the property and franchises of the company. The company has taken objection to the jurisdiction of the arbitrators appionted, and the matter was before the courts Aug. 21, and Justice MacMahon reserved his decision.

Guelph Radial Ry.—The report of the directors of the street railway for the nine months ended June 30, presented to the City Council, shows a net gain over expenses of $4,066.

Halifax Electric Tramway Co.—Railway receipts for July, $16,166.00, against $17,284.44 for July, 1905.

Montreal Street Ry.—Passenger earnings for July, $295,643.76; total earnings, $300,884.57, against $254,097.34 passenger and $257,827.99 for July, 1905. Working expenses, $161,160.75; city percentage, $25,650.01; interest on bonds and loans, $15,180.86; contingent for renewals, $14,971.03; surplus, $83,921.92, against a surplus of $88,757.05 for July, 1905. Net earnings for ten months ended July 31, $966,315.73; surplus, $591,504.47, against $786,981.03 net earnings, and $555,064.30 surplus for same period 1904-05.

Toronto Ry.—Car earnings for July $265,891.73, against $237,479.41 for July, 1905.

Westminster and Vancouver Tramway Co.—Two additional suits have been entered in connection with the transfer, several years ago, of the Westminster and Vancouver Tramway Co., to the Consolidated Ry. and Light Co., which in turn was absorbed by the B.C. Electric Ry. It is claimed on behalf of certain shareholders of the Westminster and Vancouver Tramway Co., that the late D. Oppenheimer made a secret profit of $50,000 out of the sale of the company's property, and that this profit should belong to the company, which is still in existence, and has creditors, but no assets. The second suit has to do with the Oppenheimer interests, and not with the company.

Electric Railway Notes.

The Montreal Street Ry. has installed an electric switch at the corner of St. James and McGill streets.

The Hamilton, Grimsby and Beamsville Electric Ry. is demanding an increased rate for handling freight cars for the Toronto, Hamilton and Buffalo Ry.

The B.C. Electric Ry. Co.'s employes at Vancouver, New Westminster and Victoria, have decided not to accept the company's proposal to establish a pension fund.

Electric railways are required by the Ontario Railway Act, 1906, to report accidents to the Railway and Municipal Board, under a penalty of $200 a day. There appears to be some difference of opinion as to what constitutes an accident of which a report should be made, the members of the Board having a very much more strict definition than the managers of the companies. The Board investigated two accidents at Hamilton, and gave judgment Aug. 17. The first case had reference to the injury of Victor Newman by a car of the Hamilton Street Ry., and the second to the collision between a car of the Hamilton Radial Ry. and a G.T.R. switching locomotive. In the first case the Board found that the car was running at a very high and excessive speed; the conductor and motorman are blamed and the Board directed that if they were then in the employ of the company they be suspended for 30 days. A rider to the judgment expressed the opinion of the members of the Board, based upon personal observation, that the cars of the company are operated very carelessly and at times run at too high rate of speed consistent with the safety of the public. The company is advised to take immediate steps to compel a more careful operation of the cars by the employes. In the second case the Board characterized the crossing at the intersection of Ferguson Ave. and Wilson St., where the accident occurred, as a dangerous one, and directing that the precaution, adopted since the accident, of stopping the cars and the conductor going forward to ascertain if the track is clear, be made a permanent order. The Board has no authority over the G.T.R., so that the question of whether any additional precautions, in addition to the derailing device existing there, should be considered, said the board, by the Hamilton City Council and, if necessary, brought before the Railway Commission.

Labor Questions on Ontario Lines.

The employes of the London Street Ry. Co. went on strike July 26, but the company was able to have nearly a full service running a few hours after the men went out. The members of the Ontario Railway and Municipal Board reached the city the same day, and had a conference with the Mayor and representatives of the men. Subsequently certain recommendations were made by the Board, and by July 30 the Manager stated that with the exception of 15 all the men who went on strike had returned to work. On Aug. 3 the men decided to accept the findings and recommendations of the Railway and Municipal Board, and on Aug. 18, after further negotiations, the strike was called off, the President of the local union stating, however, that the fight against the company had not been relinquished.

The Railway and Municipal Board issued a report on the matter Aug. 20, in which the requests of the men and the findings were set forth in detail as follows:

That the company shall pay for all uniforms of motormen and conductors over six months in the service of the company: The board declines to grant request.

That the company shall supply conductors with $20 as change to run cars without

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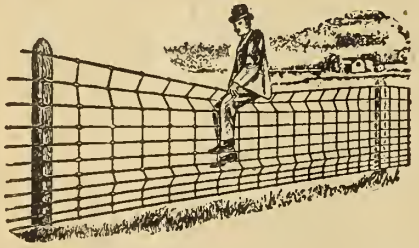

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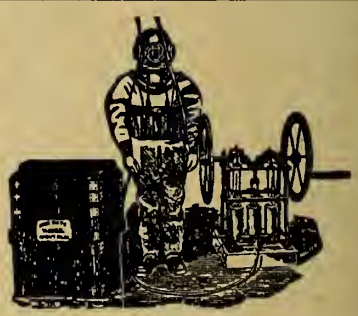

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using their own funds: The board recommends that $20 in change be given conductors on their giving a bond as security.

That regular or day men should not be compelled to take fare boxes into office, but leave same with relief conductor: The board grants request.

The regular or day men should not be required to clean car windows before leaving car sheds. The board decides that as regular men supply their own uniforms they should not be compelled to do such work.

That regular men shall not be compelled to give up regular runs for special runs: The board recommends regular men take special runs in case of excursions to avoid accidents.

That conductors shall not be made to act as motormen and vice versa: On investigation the board found such was only done in case of emergency.

That nine-hour day be adopted: The board did not recommend any course in absence of evidence.

That the men should receive 20c. an hour: In absence of evidence the board recommended no stated amount.

That C. Stuart, W. Atcheson, and H. B. Buchanan be reinstated: The board declined to recommend this.

That a duly authorized committee from the union confer with the company regarding grievances: The board declined to deal with this question.

That the company do not discriminate against any employe because a member of the union and do nothing to prevent any employe from joining the union: Counsel for company stated that the company did not do so, and the board recommends that the company continue such a course.

In every detail the board was unanimous with the exception of the discharging of the three employes. With regard to the treatment meted out to these men Vice-Chairman Ingram dissented from the opinion of Chairman Leitch, but Mr. Kittson agreed with the Chairman, the result being that the finding was in favor of not reinstating the employes. Mr. Ingram strongly favored the dismissal of Stuart, inasmuch as he should have been dismissed long before he was, but in the cases of Atcheson and Buchanan believed they were dealt with too harshly; Buchanan, he thought, did nothing that he was not justified in doing.

A threatened strike at Hamilton took the Board to that city, but there was a strong disposition on the part of the men not to have anything to do with the Board. The result was that the men continued negotiating with the company, finally got in touch with the President of the Cataract Light, Power and Traction Co., owning the three companies—Hamilton Street Ry., Hamilton Radial Ry., and Hamilton and Dundas Ry.—interested, and it was announced, Aug. 28, that the difficulties were in a fair way of settlement.

Street Railway Statistics

The figures published by the Department of Railways and Canals in the Railway Statistics for the Dominion for the year ended June 30, 1905, showed that there were 793.12 miles of completed electric railways, with 35.31 miles of sidings, and that these railways had altogether 185.73 miles of double track. The figures relating to the individual companies credited the Montreal Street Ry. with having a total length of line of 124.42 miles, and Toronto with having a total length of line of 48.65. This shows a disparity of mileage which those acquainted with the cities know does not exist. A reference to the previously issued reports of the department showed that for some years past the figures relating to these two companies had varied to a considerable extent. The total length of line of the two companies is set out in the tables of the reports to have been in the following years:

	Montreal.	Toronto.
1901	103.43 miles.	89.10 miles.
1902	64.64 "	49.35 "
1903	117.46 "	96.74 "
1904	123.67 "	46.75 "
1905	124.42 "	48.65 "

Upon taking up the matter with the companies, we learned that the mileage of the Montreal St. Ry.—124.42 miles—represents the track mileage, each mile of double track being counted as two miles. R. J. Fleming, General Manager Toronto Ry., wrote: "Our figures answer the Government's inquiry 'Length of main line?' which is interpreted in a footnote to be as follows: 'The length of main line is the distance from point to point irrespective of double track or sidings,' and we are of opinion that the mileage given properly answers this inquiry so far as it refers to the city of Toronto. So far as the figures of 1901 are concerned the question asked by the Government was not the same as for 1902 and following years. In reply to your inquiry for the company's actual mileage of June 30, 1905, would say the length of steel rails reduced to single track amounts to 97.562 miles, which includes curves, etc., on the streets amounting to 1.2587 miles, the difference being a straight single track mileage of 96.3038 miles."

Calculated on the basis of the Montreal Street Ry. figures, the Toronto Ry. mileage would therefore be 96.30 miles; and calculated on the basis of the Toronto Ry. figures the Montreal Street Ry.'s mileage would be 74.80 miles.

The Secretary of the Department of Railways and Canals, in reply, pointed out that "the discrepancies referred to are due to the inclusion by certain companies of double track in the length of road, and were observed by the officers of the department at the time, thanks to the practice, which so far as practicable, existed, of comparing the statements sent in by a company with those previously forwarded, and in the summary of these statistics presented in the annual report of the Department for 1901-1902, is a footnote drawing attention to the fact that the figures furnished in 1900-1901 were erroneous, owing to the fact that the length of the second track had been added by certain companies to their mileage."

The fact, however, remains that the figures as published for the year ended June 30, 1905, were erroneous, and if discrepancies were observed by the officers of the Department at the time, they should have been corrected before publication. The object THE RAILWAY AND MARINE WORLD had in calling attention to the matter was to have an obvious discrepancy set right, and to prevent its recurrence in future. The intention of the Department is evidently to give the total length of the lines irrespective of double track, and to show the double track separately. The total length of line of the electric railways in Canada at June 30, 1905, as given by the Department, should be reduced by 49.62 miles, which would leave it at 743.50 miles.

W. N. Warburton, heretofore Manager Chatham, Wallaceburg and Lake Erie Ry., Chatham, Ont., has been appointed General Manager Windsor, Essex and Lake Shore Rapid Ry., Windsor, Ont.

The Toronto Ry. is enforcing a rule that any motorman coming on duty under the influence of intoxicating liquor shall be instantly dismissed. There is no appeal from this, and no man is given a second chance.

Grain Elevator Notes.

A 30,000 bush. elevator has been erected at Giroux, Sask., for the Dowd Milling Co.

The Saskatchewan Elevator Co. has been incorporated at Regina, Sask., under the ordinances of the Northwest Territories.

The Smith Grain and Commission Co., Winnipeg, Man., and Minneapolis, Minn., is building grain elevators at seven points on the C.P.R. Pheasant Hills branch.

The Midale Farmers' Elevator Co., and the Farmers' Milling Elevator Co., Prince Albert, have been incorporated under the Saskatchewan provincial laws.

The Canadian Elevator Co. has purchased the 25 elevators at different points in Manitoba and Saskatchewan, heretofore operated by March Bros. and Wells, Winnipeg, Man.

Tenders have been invited by the Department of Railways and Canals for the construction of a large grain elevator at Port Colborne, Ont., at the Lake Erie outlet of the Welland Canal.

By a fire at Pakenham, Ont., Junly 29, the grain elevator erected two years ago by the Dowd Milling Co., was destroyed with its contents. The loss is estimated at about $80,000.

The Ogilvie Mills Co.'s elevator on Seigneurs St., Montreal, was damaged by fire, Aug. 14. The elevator contained 200,000 bush. of wheat, and considerable damage was done to the grain by water, the actual damage by fire being $3,000.

The Barnett & Record Co., elevator builders, etc., Minneapolis, Minn., has been authorized to do business in the province of Quebec, with its headquarters at Montreal. D. Robertson, Montreal, is named as its chief agent, replacing W. H. James of St. Henri, Que.

A Montreal press despatch states that an action is about to be commenced by the owners of the str. Gaspesien for $5,000, against the Montreal Harbor Commissioners floating elevator 7, on account of damages the steamer sustained in its recent collision with the elevator in the harbor.

The Dominion Government has appointed J. Miller, Indian Head, Sask.; W. L. McNair, Keyes, Man., and G. E. Goldie, Ayr, Ont., a commission to investigate and report upon all matters in connection with the grain trade of Canada. The first named is to be chairman, and J. R. Boyle, of Edmonton, Alta., has been appointed secretary.

The Winnipeg and Morris Improvement Co., which has been incorporated under the Manitoba Companies' Act, with a capital of $40,000 and offices at Winnipeg, may construct, acquire and operate grain elevators. The provisional directors are: C. W. N. Kennedy, B. L. Deacon, R. R. Pattinson, W. H. Sproule, and E. M. Counsell, of Winnipeg.

The Consolidated Elevator Co. has been incorporated under the Dominion Companies' Act, with a capital of $100,000 and offices at Winnipeg, to carry on a general elevator business throughout Canada, and elsewhere. The provisional directors are: W. J. Bettingen, A. Reid, K. B. Stoddart, F. W. Cumming, E. James, of Winnipeg; W. C. Leistikow, of Grafton, N.D.

The Peavy Elevator Co., which operates extensively in the United States, has let contracts for lumber for the construction of 25 elevators, to be erected at different points on the Canadian Northern Ry. in the Swan River and the Carrot River valleys. The elevators are to have a capacity of 25,000 bush. each. The company does not at present propose to construct any elevators in Winnipeg.

The British America Elevator Co. has been incorporated under the Dominion Companies'

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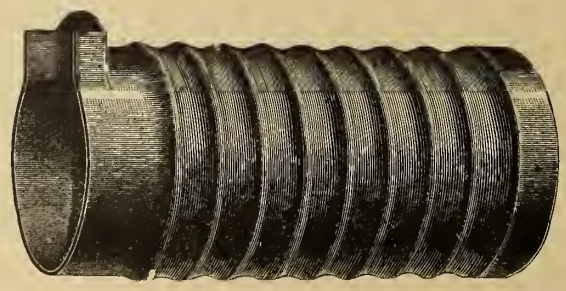

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Acts, with a capital of $500,000 and offices at Winnipeg, to carry on a general elevator business in Canada, and in connection therewith to acquire existing elevators, stock in elevators or allied companies, etc The provisional directors named in the letters patent are clerks and other employes of a Toronto law firm.

The Montreal Harbor Commission has been fined $100 by the Recorder for importing a man named Barry from Buffalo, N.Y., to work as a shovel tender at the new elevator erected by that body at Montreal. The Commissioner's Superintendent, J. Nehin, engaged shovel tenders in Buffalo, and it was alleged that the work of shovel tending was skilled work pertaining to a new industry, and that, therefore, there was no liability under the Alien Act. The Recorder held that grain elevators were not new to Canada, and that shovel tending was not an operation requiring any very special skill.

Grain Elevator at Tiffin, Ont.

The grain elevator which has recently been completed by the Aberdeen Elevator Co. at Tiffin, Ont., near Midland, on the G.T.R., is a steel structure on concrete foundation. All floors are concrete, and the entire building is constructed to accomplish two distinct purposes. Great rapidity in unloading cargoes from vessels and loading the same into cars either directly from the vessel or from the tank storage. This is accomplished by what is claimed to be the largest single marine leg in the world, with a capacity guaranteed by the builders of 30,000 bush. an hour. The grain is received from the marine leg in the steel garners located in the self-contained steel marine tower, where it is weighed and dropped on a set of two belt conveyors, which have a capacity of 15,000 bush. an hour each. These conveyors deposit the grain in the working-house, where the stream is diverted either to the large single lofter, capacity 30,000 bush., which elevates the grain and deposits it on the conveyor in the big over tanks belt gallery, for distribution to the tanks for storage, or the conveyors below deliver the stream to the two lofters, capacity 15,000 bush. an hour each, which elevates to the four big scales, capacity 1,500 bush. each, where the grain is weighed and dropped to cars below. The capacity for loading is equal to the unloading, viz., 30,000 bush. an hour. The working-house is equipped throughout with modern up-to-date machinery, all work and machinery have been subjected to the highest tests. The loading and shunting of cars is facilitated by a car-haul machine, an original device of great simplicity, which is estimated to haul 30 loaded 30-ton cars from a standing start. This car-haul machine is said to be unquestionably the most powerful of any now in use in elevators in the world. The power plant, enclosed in a brick and steel power house, consists of one 850 i.h.p. tandem-compound engine with full equipment of pumps, condensers, etc., and an independent electric light plant, for both arc and incandescent lighting of buildings, docks, and loading tracks, the powerful engine is supplied with steam at 150 lbs. pressure, generated by three standard water tube boilers. The second purpose accomplished in the construction of this plant was to lower the cost of insurance to the smallest possible fraction of 1%, by building a structure free from the usual defects the fire underwriters find fault with. In the construction, all of this was taken into consideration, the underwriters were consulted, and consequently an exceedingly low rate has been named on the building and contents. The water approach to the elevator is directly in line with the last two ranges the steamers pass before hauling for Midland. With the water 22 ft. deep right up to the dock, and no obstructions or channels, the site is an excellent one. The Vice-President and General Manager of the Aberdeen Elevator Co. is E. R. Bacon, of 234 La Salle Street, Chicago. The local management is under J. J. Daley, of Collingwood.

MARINE DEPARTMENT

Marine Votes for 1906-07.

At the recent session of the Dominion Parliament a large number of votes were passed, upon the estimates of the Public Works, Marine and Fisheries, and Railway and Canal Departments, in aid of the general navigation and marine interests of the country. Some of the votes were on capital account, and some on revenue account, and a number of them were re-votes. The votes included the following:

MAIL SUBSIDIES AND STEAMSHIP SUBVENTIONS.	
Canadian-Great Britain mail service	$ 275,000
Seven other services to Great Britain	108,000
Canada and Australia	152,357
" " New Zealand	37,500
" " South Africa	109,500
" " Mexico	77,500
St. John and Halifax to West Indics and South America	60,525
Four services on the Pacific coast	17,325
Twenty-nine services between Quebec and Maritime Province ports, Newfoundland, etc	180,981
Service to Pelee Island, Ont	1,500
LIGHTHOUSE AND BUOY SERVICES.	
Construction of lighthouses and aids to navigation, including apparatus, and to provide submarine signals, etc	1,290,000
Maintenance and repairs to lighthouses and lightships	552,000
Salaries and allowances to keepers	197,250
Georgian Bay buoy service, Parry Sound depot and to provide steamer for this service	30,000
Signal service	7,500
Repairs to wharves	2.250
Compensation to families of men killed by explosion of acetylene gas buoys, Kingston, Ont., April 18, 1905	40,000
Miscellaneous	40,250
OCEAN AND RIVER SERVICE.	
Maintenance and repair of steamers and icebreakers, including Arctic	533,500
For completion and delivery of additional icebreaking steamer	75,000
Examination of masters and mates	9,450
Life saving stations, etc	9,000
Wreck investigations	8,750
Schools of navigation	7,875
Registration of shipping	1,500
Removal of obstructions in navigable rivers	3,750
Tidal service	21,000
Winter mail service	12,000
Subsidy to Davie & Son, Levis, for wrecking plant, and to provide wrecking plant for Maritime Provinces and British Columbia	27,500
Maintenance of patrol vessels in northern Canadian waters	$ 63,750
Further amount required for patrol boat for northern waters	15,000
Marine hospitals, shipwrecked and distressed seamen	39,750
Steamboat inspection, including inspection of Dominion steamboats, etc	34,125
Deep Waterways Commission	17,500
Harbors and rivers generally	6,000
HYDROGRAPHIC SURVEYS.	
General	120,000
For construction of steamer for work on Pacific coast	100,000
QUARANTINE SERVICE.	
Str. Grosse Isle (re-vote)	28,000
Part reconstruction str. Challenger	13,000
St. John, N.B., quarantine station	15,000
" " water supply	4,000
PILOTAGE.	
Administration of pilotage	16,500
Pilotage pensions, Quebec district	5,000
RIVER ST. LAWRENCE SHIP CHANNEL.	
Capital expenditure, public works	441,000
To complete purchase of dredge Galveston, outfit and operation	225,000
New dredge plant for work below Quebec	150,000
Permanent piers in Lake St. Peter, etc	130,000
Additional dredging plant for work at Cap a la Roche	115.000
Compensation re boiler explosion on dredge J. Israel Tarte	2,200
CANALS.	
Staff and repairs	642,636
Surveys and inspections	4,750
Georgian Bay canal surveys	117,000
Remarking boundaries, building two flat scows, surveys, plans, etc., Quebec canals	6,000
Enlargement Cornwall and other St. Lawrence canals	5,250
BEAUHARNOIS CANAL.	
Regulating weir St. Stanislas	600
CARILLON AND GRENVILLE CANALS.	
Swing bridge, dams, and rebuilding wharf.	36,000
Gratuity to Mrs. F. G. Lynch	300
CHAMBLY CANAL.	
House for bridge-keeper, macadamizing tow path, strengthening banks, etc	18,990
CORNWALL CANAL.	
Building scow	2,500
Rebuilding wharf, etc	14,500
GALOPS CANAL.	
Rebuilding retaining wall, etc	29,000
To complete enlargement	33,000
GALOPS RAPIDS AND NORTH CHANNEL.	
To complete channel	$ 11,750
Channel and dam between Galops and Adams Island	58,400
LACHINE CANAL.	
Dredging	11,250
Rebuilding slope walls and bridge	36.475
Raising roof of flour shed	6,500
Electrical installation (revote)	3,000
Repairing leak, basin 1	20,000
Widening wharf, basin 1	20,500
Wall in basin no. 2	22,000
Grading, etc., lock no 2	5,250
Grading and finishing terminal lock 2	1,750
MURRAY CANAL.	
Rebuilding piers of concrete	18,000
RIDEAU CANAL.	
Rebuilding three swing bridges	3,600
Repairs and land damages	9,331
To purchase new tug	7,500
ST. ANNE'S LOCK.	
Rebuilding piers	2,450
ST. OURS LOCK.	
New boom piers, completing landing wharf, etc	5,330
SAULT STE. MARIE CANAL.	
Construction	120,000
Shelter for lockmen	2,000
SOULANGES CANAL	
Improvements	14,500
General repairs	3,225
Construction	14,271
Workshops	550
TRENT CANAL.	
Improvements	30,500
Construction	175,000
Work on section of Holland River from New Markct to Lake Simcoe	100,000
WILLIAMSBURG CANAL.	
Gate lifter (revote)	1,375
WELLAND CANAL.	
Electric lighting and power plant	122,000
Rebuilding, repairs, etc., of bridges	112,000
Turning basin at Welland	20,000
Improvements at Port Colborne	225,000
Grain elevator at Port Colborne	200,000
Stone protection to banks	20,000
Retaining wall in rock-cut (revote $10,000)	90,000
Foundation of weir lock 2, old canal	5,000
Entrance piers Port Maitland	30,000
Deepening at Port Colborne and Summit	114,766
Culvert and dock at Welland	50,000
Repairs, surveys, allowances and compensation	26,107

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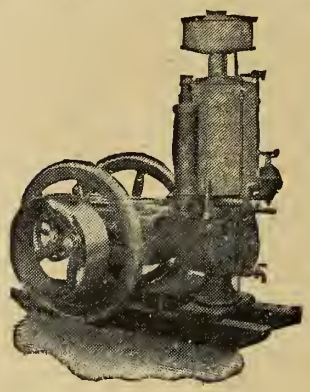

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DREDGING.	
Repairs to dredging plant general	$ 80,000
New plant, Prince Edward Island	32,000
" Ontario and Quebec	50,000
" Manitoba	20,050
" British Columbia	120,000
" generally	290,000
Dredging, general service	3,750
" Maritime Provinces	115,000
" Ontario and Quebec	205,000
" Manitoba	16,000
" British Columbia	40,000
WHARVES, ETC.	
Improvements generally Maritime Provinces	32,500
NOVA SCOTIA.	
Improvement to wharves and piers, including new construction etc., at 114 points	415,295
PRINCE EDWARD ISLAND.	
Improvements to wharves and piers, etc. at 22 points	93,200
NEW BRUNSWICK.	
Dredging and other work in connection with the winter port St. John	100,000
Improvements to wharves, piers, etc., at 32 points	246,200
QUEBEC.	
Repairs to Upper and Lower Traverse piers	10,000
Quebec harbor improvements	283,500
Montreal harbor, improvements at St. Mary's current	110,000
Improvements to wharves, piers, etc., at 115 points	832,640
Repairs, etc., to River Yamaska lock	2,250
ONTARIO.	
Breaking ice on Thunder Bay and Lake Superior	30,000
Surveys at headwaters of Ottawa River with a view to regulating water levels and improving navigation	5,000
Harbor and river improvements Port Arthur and Fort William	365,000
Port Colborne harbor improvements	60,000
Works at harbors and on rivers at 77 points, including repairs, improvements and new construction, etc	920,980
MANITOBA.	
Wharves, harbor and river improvements at 14 points	44,150
St. Andrews Rapids, construction of lock and dam (revote $76,000)	125,000
Construction of steamer for fisheries protection service on Lake Winnipeg	12,000
SASKATCHEWAN AND ALBERTA.	
Harbors, rivers, etc., general repairs to wharves, piers, etc.	8,750
Surveys North Saskatchewan River	2,500
BRITISH COLUMBIA AND YUKON.	
Improvements and repairs at 19 points in B.C.	164,785
Improvements in Yukon	5,000

Atlantic and Pacific Ocean Marine.

The Elder-Dempster Co.'s S.S. Sokato is expected at Montreal, Sept. 20, from England, to take the place of the wrecked Angola, on the Canada-Cuban-Mexican line.

The Allan Line S.S. Ionian has been chartered by the Imperial Government as a troopship, and has been replaced on the Montreal-Liverpool service by the S.S. Parisian.

The President of the International Marine Co. has announced that six new steamships are to be constructed for the several trans-Atlantic lines owned by this company.

The Elder-Dempster S.S. Angola, which went ashore recently near Louisburg, N.S., has been sold by the underwriters for $3,626. The cargo remaining on board will be removed and the hull will be broken up.

The order for the second steamer for the Allan Line is reported to have been placed with A. Stephen & Sons on the Clyde. The dimensions, capacity, etc., of this steamer were given on page 485 of our Aug. issue.

The S.S. Nyassa, under charter to McLean, Kennedy & Co., Montreal, grounded near Vercheres, between Montreal and Quebec, July 29. She was subsequently got off without having sustained any serious injury.

The Dominion Line has been given a contract to carry a mail from Canada to Great Britain on Saturdays, and the first mail so despatched was put on board the Ottawa (formerly the Germanic of the White Star line) at Quebec, Aug. 11.

A. Weir & Co., Glasgow, Scotland, has arranged to operate a line of freight steamers between Glasgow and Liverpool in Great Britain; Vancouver, B.C.; Seattle, Wash.; and San Francisco, Cal. The first steamer, the Suveric, was expected to leave Great Britain at the end of Aug.

Captain Stewart, Commodore of the C.P.R. Atlantic fleet, has been retired, after having been for 37 years engaged with the Canada Shipping Co., and its successors the Beaver Line, the Elder-Dempster Co., and the C.P.R. in trading between Montreal and other Canadian ports and Great Britain. He was first master of the barque Lake Simcoe in 1869, and among other vessels he had command in the service were the clipper ships Lake Superior and Lake Champlain, the steamships Lake Superior, Gallia, Lake Champlain, and latterly the Empress of Britain. During the whole of his service he has never lost a vessel or a passenger. He is succeeded on the Empress of Britain by Capt. Murray of the Lake Manitoba.

Maritime Provinces and Newfoundland.

W. Marks, Miscou, N.B., has been appointed harbor master for the port of Little Shippegan and Miscou Gully, N.B.

A. C. MacDonald has been appointed a member of the pilotage authority for the pilotage district of Pictou, N.S.

The Dominion Government fisheries cruiser Kingfisher has been sold to N. and M. Smith, Halifax, N.S., for Newfoundland owners.

The Olenda, a new 2,000 ton freight and passenger steamer has been chartered by the Pickford and Black Co., for the Halifax-West Indies service.

The Bowring str. Prospero is undergoing repairs at St. Johns, Nfld., having been ashore at Gibraltar ledge, near Placentia. On being put into dry dock it was found that 120 ft. of her keel had been damaged.

The Nova Scotian schooner Stanley Jersey was struck by lightning and driven ashore off the Newfoundland coast recently, and the crew of 16 were lost. The news was first reported at Queenstown, Ireland, by the Cunard S.S. Campania.

The Norwegian str. Pors, with coal from Louisburg to Yarmouth, N.S., went ashore at Port Mouton Island, July 29, during a fog, and was badly damaged. A tug which went to her assistance was also carried ashore by the current, and sustained slight damage.

The Sydney Steamship Co. has been incorporated under the Dominion Companies' Acts, with a capital of $40,000 and offices at Sydney, N.S., for the purpose of acquiring the steamship Beatrice and to act as a common carrier by sea. The provisional directors are: R. and H. C. Harrington, J. A. Young, H. W. Black, H. Ross, Sydney, N.S.

The str. Senlac built for the coasting trade on the south shore of Nova Scotia, is being offered for sale. The Senlac was built in 1904 by Wm. Thompson & Co., especially for the south shore trade, and it is understood has been operated at a loss, notwithstanding the large trade done. The opening of the Halifax and South-Western Ry. has also affected the traffic.

The United States has expressed its willingness to discuss with Canada the question of the settlement of the difficulties connected with the boundary between the two countries along the St. John River. It was originally intended that the matter should be argued before the International Waterways Commission, but the U.S. Government withdrew it from the list of questions to be submitted. A special commission will likely be appointed to deal with the matter.

The Steel Shipbuilding Investment Co. has secured a site for a shipyard for the construction of steel vessels at Halifax, N.S. Swan & Hunter, of Newcastle-on-Tyne, Eng., are interested in the proposition, and it is stated will establish a yard there as soon as the Dominion Government grants its proposed bounty, and exemption from duties on such machinery as is not made in Canada. The Provincial Government and the city of Halifax have voted subsidies to aid in the establishment of a steel shipbuilding plant.

The Renwick Co. has been incorporated under the Dominion Companies' Acts, with a capital of $40,000 and offices at Toronto, for the purpose of carrying on a general navigation business, to act as common carriers and warehousemen. The provisional directors are: A. W. Mackenzie, D. B. Hanna, L. W. Mitchell, G. G. Ruel, G. F. Macdonnell, of Toronto, all of whom are connected with the Canadian Northern Ry. and Mackenzie, Mann & Co.'s railways. The company owns the the British str. Renwick, and operates it in connection with the Inverness Railway and Coal Co., in the coasting trade in the Maritime Provinces and the Gulf of St. Lawrence. The Renwick is a steel steamer built in 1890, is 664 tons gross, 400 tons register, and carries 970 tons on a draught of 14½ feet.

Province of Quebec Marine.

Jas. Crathern has been re-elected to represent the Montreal Board of Trade on the Harbor Commission.

The Dominion Coal Co. has installed a coal discharging plant at Three Rivers, Que., the result being that its coal trade to Quebec has practically ceased.

The Corporation of Pilots at Quebec has not ceased to exist as such, but the duties which it formerly discharged in connection with the pilotage of vessels between Quebec and the sea are now entirely under the control of the Department of Marine. The pilots have all been examined as to their competency to pilot vessels. The appointments to the pilotage service for the future will rest with the Minister of Marine.

The St. Lawrence Canadian Navigation Co. has been incorporated under the Dominion Companies' Act, with a capital of $1,000,000, and offices at Montreal, for the purpose of establishing lines of steamboats on Lake Ontario, the St. Lawrence River and its tributaries; to acquire docks, wharves, etc., for the purposes of the business, and to purchase the str. Prefontaine, paying for the same in fully paid-up stock. The provisional directors are: W. Paul, Jr., Sorel, Que.; L. Lacouture, J. Jean, C. Robitaille, N. W Tanguay, Montreal. The Prefontaine is a a wooden twin-screw steamer built at Sorel, Que., 1896, and reported rebuilt at the same place, 1898 and 1903, of which W. Paul, Jr., is the registered owner. Her dimensions are: length, 202 ft.; breadth, 30 ft. 6 in.; depth, 8 ft.; tonnage—gross, 899 tons, register, 533. She is fitted with engines of 56 n.h.p.

The Beauharnois Navigation Co. has been incorporated under the Dominion Companies' Act, with a capital of $20,000 and offices at Beauharnois, Que., for the purpose of carrying on a general navigation business in Canada or elsewhere. The provisional directors are: L. J. Primeau, C. A. Carter, A. Bazin, Montreal; A. and F. Hebert, J. A. A. Desrochers, Beauharnois, Que. J. A. A. Desrochers, one of the applicants is a master mariner, and described as the owner of the str. Beauharnois, which plys between the town of that name and Montreal. The Beauharnois, which was originally the Sorel, operated by the Richlieu and Ontario Navigation Co., is an iron side-wheel steamer, built at Sorel 1871, and rebuilt 1900, her dimensions being: length, 108.9 ft.; breadth, 18.2 ft.; depth, 4.1 ft.; she is of 158 tons gross and 89 tons register, and is described as a single bottom river passenger steamer.

JOHN McDOUGALL & CO.

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General Manager

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SAILINGS FROM MONTREAL AT DAYLIGHT.

S.S. Canada, Sept. 1; S.S. Kensington, Sept. 8; S.S. Ottawa, Sept. 15; S.S. Dominion, Sept. 22; S.S. Southwark, Sept. 29; S.S. Canada, Oct. 6; S.S. Kensington, Oct. 13; S.S. Ottawa, Oct 20; S.S. Dominion, Oct. 27; S.S. Southwark, Nov. 3; S.S. Canada, Nov. 10; S.S. Kensington, Nov. 17.

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LIST OF STEAM VESSELS REGISTERED IN CANADA FROM JULY 15 TO AUG. 15.

Name.	No.	Where and When Built.	Engines, etc.	Length	B'dth.	Depth.	Gross tons.	Reg. tons.	Home Port.	Owners.
				ft.	ft.	ft.				
Alaska	117,174	Detroit, Mich.. 1878	Screw 8 N.H.P.	165.2	29.0	10.6	348	173	Windsor, Ont.	W. J. Pulling, et al, Windsor, Ont.
Belle	121,752	Vancouver, B.C., 1906	" 3 "	31.6	8.3	3.2	11	7	Vancouver, B.C.	C. A. McKinnon, et al, Vancouver, B.C.
Bobs	111,887	Peterboro, Ont., 1904	" ½ "	28.5	9.0	3.7	11	8	Peterboro, Ont.	J. L. Rogers, Peterboro, Ont.
C. Hickox	103,817	Black Creek, Ohio, 1873	" 16 "	130.7	24.8	9.0	208	141	Belleville, Ont.	Mrs. A. Smith, Belleville, Ont.
Chinook	117,158	Astoria, Ore., 1889	" 3 "	59.0	14.5	4.3	34	23	N. Westminster, B.C.	G. Wilson, Vancouver, B.C.
Colonial	122,012	Kippewa Lake, Ont., 1906.	" 9 "	52.0	12.3	4.4	19	18	Ottawa, Ont.	Colonial Lumber Co., Pembroke, Ont.
Duke of York	122,068	Montreal, Que., 1903	Paddle 6 "	74.5	25.1	6.0	187	144	Montreal, Que.	W. J. Poupore, Montreal, Que.
Dundurn	112,207	Detroit, Mich., 1882	Screw 61 "	190.0	30.2	12.2	1120	600	Hamilton, Ont.	R. O. Mackay, Hamilton, Ont.
Ethola	121,755	Vancouver, B.C., 1906	" 3 "	41.3	10.3	4.9	16	11	Vancouver, B.C.	G. L. Center, Vancouver, B.C.
Favorite	121,760	Chinook, Ore., 1881	" 2 "	40.0	11.3	5.7	25	17	" "	A. Percroson, Vancouver, B.C.
FlorenceCarlin	121,975	Knalt, B.C., 1906	Paddle 9 "	97.5	20.4	4.6	143	90	Victoria, B.C.	Columbia River Lumber Co.,Golden,B.C
Gazeka	121,762	Vancouver, B.C., 1906	Screw 1 "	34.2	13.5	4.9	19	13	Vancouver, B.C.	A. G. Thynne, Vancouver, B.C.
Gipsy	122,074	Toronto, Ont., 1906	" 2 "	51.8	12.5	4.4	35	24	Toronto, Ont.	F. W. Hendry, et al, Toronto, Ont.
Glenvilla	122,067	Chatham, Ont., 1906	" 2 "	36.1	8.1	3.2	8	5	Montreal, Que.	G. A. LeBaron, North Hatley, Que.
Hazell	122,045	Grand Manan, N.B., 1904	" 1 "	35.0	11.0	5.0	10	7	St. Andrews, N.B.	D. S. Gaskell, Grand Manan, N.B.
Islander	122,110	Shelburne, N.S., 1906	" 16 "	67.0	17.5	7.6	54	37	Yarmouth, N.S.	New Burrell Johnson Iron Co.,Yar., N.S.
Ivanhoe	121,753	Vancouver, B.C., 1906	" 1½ "	32.2	10.3	4.7	12	8	Vancouver, B.C.	C. A. Godson, Vancouver, B.C.
Jean	97,107	Buffalo, N.Y., 1889	" 4 "	49.0	12.4	4.4	21	14	Port Burwell, Ont.	H. P. Boyd, Port Burwell, Ont.
Jean	122,064	Montreal, Que., 1905	" 2 "	35.8	8.3	3.6	7	4	Montreal, Que.	C. O. Clarke, St. Paul, Que.
Kiora	121,973	Victoria, B.C., 1906	" 2 "	37.0	10.7	4.3	12	9	Victoria, B.C.	W. S. Chambers, Victoria, B.C.
Kuskanook	121,758	Nelson, B.C., 1906	Paddle32 "	193.5	30.9	7.0	1008	548	Vancouver, B.C.	C.P.R., Montreal, Que.
Laura B	117,130	Gananoque, Ont., 1906	Screw.4-5 "	25.4	5.4	2.2	2	1	Kingston, Ont.	G. A. Whitmarch, Gananoque, Ont.
Lucky Jim	121,757		" ½ "	29.5	8.3	2.6	7	5	Vancouver, B.C.	West & Watson, Vancouver, B.C.
Otranto	121,923	Baltimore, Md., 1893	" 8 "	75.0	10.6	2.9	35	24	Quebec, Que.	J. Doran, Quebec, Que.
Pastime	121,759		" ½ "	32.4	10.5	3.7	15	10	Vancouver, B.C.	W. S. Holland, Vancouver, B.C.
Petrel	121,974	Victoria, B.C., 1906	" 23 "	86.4	17.0	12.3	134	58	Victoria, B.C.	Victoria Mach. Depot Co., Victoria, B.C.
Puffing Billy	122,073	Waubaushene, Ont., 1905	" ½ "	23.8	5.8	2.9	3	2	Toronto, Ont.	J. C. Cantley, Georgian Bay, Ont.
Rambler	121,754	Vancouver, B.C., 1906	" 4-5 "	31.0	10.0	4.6	15	9	Vancouver, B.C.	C. Porter, Vancouver, B.C.
SaraM.Renton	121,761	Pt. Blakeley,Wash., 1889	" 31 "	92.0	20.0	10.7	147	100	" "	Jas. S. Emerson, Vancouver, B.C.
Siesta	122,072	Waubaushene, Ont., 1905	" 1 2-3 "	31.0	7.4	3.4	5	3	Toronto, Ont.	J. C. Cantley, Georgian Bay, Ont.
Venetta	117,147	Mahone N.S., 1904	" 1 "	30.5	9.0	3.5	5	5	Halifax, N.S.	J. N. Pettipas, Bay of Islands, Nfld.
Wenona	107,685	Prescott, Ont., 1905	" 8 "	66.6	10.4	4.6	26	17	Prescott, Ont.	J. D. Reid, Prescott, Ont.

LIST OF SAILING VESSELS AND BARGES REGISTERED IN CANADA FROM JULY 15 TO AUG. 15.

Name.	No.	Where and When Built.	Rig.	Length	B'dth.	Depth.	Gross tons.	Reg. tons.	Home Port.	Owners.
Aerolite	122,132	Cape Island, N.S., 1906	Sloop	36.0	13.0	6.6	16	16	Yarmouth, N.S.	J. J. Duncan, Cape Island, N.S.
Alfreda	122,096	Barrington, N.S., 1906	"	30.6	11.0	6.0	11	11	" "	P. Nickerson, Cape Island, N.S.
Alten C	122,133	Clyde, N.S., 1906	"	30.0	10.6	6.0	10	10	" "	J. Y. Smith, Port La Tour, N.S.
Anita	122,093	Surette's Island, N.S., 1905	"	30.0	11.0	6.0	11	11	" "	A. Bourque, Tusket, N.S.
Annie May	121,933	Spry Bay, N.S., 1906	Schr.	48.5	14.3	7.6	24	24	Halifax, N. S.	H. Gerrard, Spry Bay, N.S.
Athlete	121,895	Shelburne, N.S., 1906	Sloop	38.0	13.0	5.7	13	—	Shelburne, N.S.	J. C. Cook, Grand Harbor, N.B.
Bella	122,109	Tusket Wedge, N.S., 1906	"	36.0	13.0	7.0	18	18	Yarmouth, N.S.	W. Pothier, Tusket Wedge, N.S.
Bernice N	122,102	Shelburne, N.S., 1906	"	30.0	11.0	6.0	10	10	" "	J. E. Nickerson, Wood's Harbor, N.S.
Clara M. Smith	122,094	Cape Island, N.S., 1905	"	30.0	10.6	6.0	10	10	" "	F. E. Smith, Cape Island, N.S.
Dominion	116,383	Port Arthur, Ont., 1905	Dred.	114.0	43.5	12.0	595	366	Port Arthur, Ont.	Great Lakes Dredging Co., Pt. Arthur, Ont.
Dredge No. 8	116,384	Duluth, Minn., 1888	"	96.0	36.0	9.5	328	86	" "	" " "
E. C. Francis	121,906	Clark's Harbor, N.S., 1906.	Sloop	31.2	11.8	5.8	12	12	Barrington, N.S.	W. H. Smith, Clark's Harbor, N.S.
Etta M	122,137	Barrington, N.S., 1905	"	30.0	10.6	6.0	10	—	Yarmouth, N.S.	C. Kendrick, Shag Harbor, N.S.
Felton C	122,095	Cape Island, N.S., 1906	"	36.0	13.0	7.0	16	16	" "	R. B. Wyman, Yarmouth, N.S.
Florence M	122,106	Barrington, N.S., 1905	"	30.0	11.0	6.6	10	10	" "	J. E. Nickerson, Cape Island, N.S.
Germinnie	122,063	Ste. Emelie, Que., 1906	"	89.3	24.0	7.5	97	87	Montreal, Que.	A. Massicotte, St. Jean Deschaillons, Que.
Gertrude W	117,030	Ingonish, N.S., 1906	Schr.	41.0	12.6	7.3	16	16	Sydney, N.S.	J. C. Williams, Ingonish, N.S.
George L	122,097	Salmon River, N.S., 1906	Sloop	34.0	12.2	6.0	13	13	Yarmouth, N.S.	J. J. LeBlanc, Salmon River, N.S.
Georgie M.Smith	122,092	Clyde, N.S., 1906	"	34.0	11.6	7.0	13	13	" "	T. E. Smith, Yarmouth, N.S.
Helen C	122,100	Shelburne, N.S., 1905	"	30.0	10.6	6.0	10	10	" "	N. Crowell, Wood's Harbor, N.S.
Hilda	122,099	Tusket Wedge, N.S., 1906	Schr.	36.0	13.0	7.0	17	17	" "	J. A. Boudreau, Tusket Wedge, N.S.
Isaac Hunter	122,013	Kippewa Lake, Ont., 1906.	S. bge.	50.0	14.9	4.4	23	23	Ottawa, Ont.	Colonial Lumber Co., Pembroke, Ont.
JamesA.Stetson	103,804	Lubec, Me., 1868	Schr.	72.0	9.5	6.5	81	71	Pictou, N.S.	T. Kickham, Souris, P.E.I.
Jeannie & Annie	121,934	Spry Bay, N.S., 1900	"	43.0	12.8	6.9	16	16	Halifax, N.S.	W. C. Henley, Spry Bay, N.S.
Katie M	122,131	Port La Tour, N.S., 1906	Sloop	30.0	10.6	6.0	10	10	Yarmouth, N.S.	C. Reynolds, Port La Tour, N.S.
Lizzie B	122,101	Mavilette, N.S., 1906	"	35.0	14.6	7.0	18	18	" "	L. Beaudreau, Mavilette, N.S.
Lottie G	122,105	Clyde, N.S., 1905	"	30.0	11.3	6.0	10	10	" "	V. Brannen, Wood's Harbor, N.S.
Lottie M.Beat'ce	117,098	Half Island Cove, 1906	Schr.	39.0	13.3	6.3	17	17	Arichat, N.S.	H. Hendsbee, Half Island Cove, N.S.
Louise	122,098	Pubnico, N.S., 1905	Sloop	30.0	11.4	6.0	10	10	Yarmouth, N.S.	D. H. Langthorn, Wood's Harbor, N.S.
Lyla H	122,042	Shelburne, N.S., 1894	"	30.8	10.0	6.0	11	11	St. Andrews, N.B.	A. Frankland, Grand Manan, N.B.
Mary J	117,099	River Bourgeoise, N.S,1906	Schr.	54.8	17.1	6.7	33	33	Arichat, N.S.	H. Sampson, River Bourgeoise, N.S.
Mary M. Bell	117,053	Port Felix, N.S., 1906	"	30.0	12.0	5.6	10	10	Canso, N.S.	J. Bellfountain, Port Felix, N.S.
Minnie M	122,112	Little Bras D'or, N.S., 1906	"	32.8	10.9	4.1	7	7	Sydney, N.S.	A. Buchanan, St. Anns, N.S.
Mira L. Smith	121,905	Clark's Harbor, N.S., 1906.	Sloop	33.0	12.1	6.2	14	14	Barrington, N.S.	T. F. Smith, West Baccaro, N.S.
Muriel S	122,103	Cape Island, N.S., 1905	"	30.0	10.6	6.0	10	10	Yarmouth, N.S.	T. Symonds, Cape Islands, N.S.
Nyctia	122,136	Shag Harbor, N.S., 1906	"	30.0	11.0	6.0	10	10	" "	E. Adams, Shag Harbor, N.S.
Ocean Spray	122,104	Cape Island, N.S., 1906	"	30.0	11.5	6.0	11	11	" "	C. E. Atkinson, Cape Island, N.S.
Olive C	122,044	Seeley's Cove, N.B., 1906	"	41.3	16.0	7.0	26	26	St. Andrews, N.B.	T. Carter, Seeley's Cove, N.B.
St. Paul	122,065	St. Th. de Pierrev'e, Q.1906	"	88.5	20.3	5.1	72	65	Montreal, Que.	P. Joly, St. Anne de Sorel, Que.
St. Romuald	122,062	N. Dame de Pierrev'e, 1906	"	109.7	23.6	7.7	151	138	"	E. Daneau, Notre Dame de Pierreville, Que.
Sea Foam	122,043	West Isles, N.B., 1898	"	28.0	12.8	6.0	14	14	St. Andrews, N.B.	M. C. Kent, Grand Manan, N.B.
Seretha	122,108	Shelburne, N.S., 1905	"	30.0	10.6	6.0	10	10	Yarmouth, N.S.	S. N. Atkinson, Cape Island, N.S.
Sweet Home	122,111	Sydney, N.S., 1906	Schr.	38.8	13.5	5.1	14	14	Sydney, N.S.	J. Marshall, Sydney, N.S.
Thistle	122,091	Cape Island, N.S., 1905	Sloop	30.0	11.4	6.0	10	10	Yarmouth, N.S.	R. H. Brannen, Cape Island, N.S.
To U. 8	122,135	Shelburne, N.S., 1906	"	36.6	12.3	7.0	16	16	" "	W. Rawkin, Yarmouth, N.S.
Two Brothers	117,029	Ingonish, N.S., 1906	Schr.	41.0	13.6	7.3	17	17	Sydnev, N.S.	J. Williams, Ingonish, N.S.
Two Sisters	122,107	Shelburne, N.S., 1905	Sloop	30.0	10.6	6.0	10	10	Yarmouth, N.S.	B. Chatwynd, Wood's Harbor, N.S.
Ungava	122,066	Collingwood, Ont., 1906	Barge	200.0	41.0	17.0	1318	1226	Montreal, Que.	Montreal Transportation Co., Montreal.
Venus	122,134	Cape Island, N.S., 1904	Sloop	30.0	10.6	6.0	10	10	Yarmouth, N.S.	L. P. Surette, Tusket Wedge, N.S.
Verona	121,756	Vancouver, B.C., 1906	"	26.6	8.9	3.6	7	7	Vancouver, B.C.	C. O. Julia, Vancouver, B.C.
Vice Reine	121,894	Shelburne, N.S., 1906	"	41.0	13.8	5.4	12	12	Shelburne, N.S.	E. Penny, Cape Island, N.S.

A modern fog horn has been erected by the Dominion Government at the Thunder Cape entrance to Thunder Bay, Lake Superior.

An icebreaking steamer, which was named Lady Grey, was launched at Barrow-in-Furness, Eng., Aug 21, for the Dominion Government.

The Hamilton str. Dundurn carried away two gates at the Lachine Canal, Aug. 28, and the rush of water flooded a number of business places. The damage is estimated at $10,000.

The Muskoka Lakes Navigation and Hotel Co.'s new str. the Sagamo will not be ready for operation this season. The construction has been completed to the main deck, the cabins having to be put on, and other work done.

A press dispatch from Collingwood, Ont., dated Aug. 27, stated that the C.P.R. Co. has let a contract to build two package freight steamers on the Georgian Bay. We are advised by a C.P.R. officer that the report is absolutely untrue.

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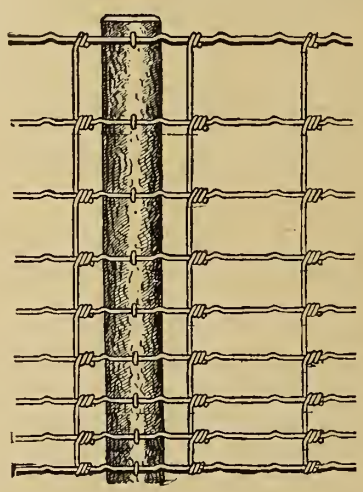

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NAVAL ARCHITECT

(Formerly on the Design Staff of Messrs. Denny, Dumbarton)

591 West St. Catherine Street, Montreal, Canada

Ontario and the Great Lakes.

J. T. May has been appointed harbor master for the port of Little Current, Ont., by the Dominion Government.

A steel dredge for the Canadian Construction Co. has been delivered at Midland, Ont., by M. Beatty & Sons, Welland, Ont.

The name of the str. Maud, official number 92,728, registered at Midland, Ont., has been changed by order-in-council to Irene.

Capt. W. F. McGregor, Windsor, Ont., has been appointed to be an examiner of Masters and Mates for that port by the Dominion Government.

The Great Lakes Dredging and Dock Co., Chicago, Ill., was the lowest bidder for widening St. Mary's falls above the U.S. locks at Sault Ste. Marie, Mich. The amount of the tender was $552,530.

Capt. W. H. Solmes, for over 16 years in the service of the Niagara Navigation Co., and during the present season in command of the Chippewa, died in Toronto Aug. 17, after a short attack of typhoid.

The str. Turbinia has been chartered to make a trip to Whitby, Oshawa, Bowmanville and Newcastle, from Toronto, one day a week, and to Port Hope and Cobourg, from Toronto, every Thursday until the end of the season.

Since the passing by the Wisconsin State Legislature of a law taxing vessels on the ad valorem basis, the registry of 37 vessels, having a gross tonnage of 55,980, has been changed from Milwaukee to Duluth, Detroit, and other ports in the states of Minnesota and Michigan.

We were recently advised that nothing definite had been decided about the proposed new steamboat for the Niagara, St. Catharines and Toronto Ry., to run between Toronto and Port Dalhousie, and that the press report that the Hamilton Steamboat Co. had placed an order for a steamer to have a capacity for 2,000 passengers was incorrect.

L. C. Sabin, who has been acting as Secretary of the International Waterways Commission, United States section, has resigned to become Superintendent of the U.S. canals at Sault Ste. Marie, Mich. E. E. Haskell, of Detroit, Mich., has been appointed a member of the commission by the U.S. Government, to succeed the late G. Y. Wisner, also of Detroit.

A supplementary judgment has been issued in the Ontario courts by which R. O. and A. B. Mackay, of Hamilton, Ont., are restrained in any way from interfering with the privileges of the Hamilton Steamboat Co. at its private wharf at Hamilton. The judgment sets out that the injunction applies to both the company's steamers or boats of no greater size.

The Great Lakes Dredging Co. has purchased a site on the McKellar branch of the Kaministikwia River, Fort William, and will use it for the purpose of erecting a repair shop and small marine railway for its own use in repairing its scows, dredges and tugs. It will be operated by the company in the same way as the marine repair shop which it has at Port Arthur, Ont.

The str. Erindale, which has been running along the north shore of Lake Ontario during the present season, was burned to the water's edge at Newcastle, Aug. 9, the cook, Mrs. Constantine, being burned to death. The steamer was valued at $12,000, and there was insurance of $7,500. It is alleged that the steamer was wilfully set on fire, and the owners have asked for a thorough investigation.

The St. Lawrence and Chicago Steam Navigation Co. is having built at Bridgeburg, Ont., a new steamer to be ready for delivery May 1, 1907. The steamer will be built on the arch system, and will have a displacement of 9,000 tons on a draught of 19 ft. 6 in. Her dimensions will be: length, 506 ft. over all; breadth, 56 ft., depth, 31 ft.; and she will be fitted with quadruple expansion engines developing 2,000 h.p.

Tenders are under consideration for the construction of a tug to replace the one now used in connection with the dredging plant on the Rideau Canal. The tug will be built of steel frames, with steel shear strake; her dimensions being: length, 80 ft.; beam, 17 ft. The machinery will consist of a fore and aft compound engine, cylinders 9 and 18 in. by 12 in. stroke; independent condenser and air pump. The new tug is to be delivered at Ottawa under her own steam by May 15, 1907.

The Niagara Navigation Co.'s new str. Cayuga was given a preliminary run by the builders July 27, when the engines were found to work satisfactorily. The official trial trip took place Aug. 15, when she made an average speed of 21½ miles an hour, and for two hours made 22 miles an hour. The run was between Gibraltar light, Toronto, and Braddock's light, Charlotte, N.Y., 84 miles, and was a very satisfactory one. It is expected to have the Cayuga completed this season, but it is hardly likely she will be put in the regular service this year. She was to have been ready May 15.

The Northern Navigation Co. has purchased the str. Cuba, of Buffalo, N.Y., and expected to have her on the route between Sarnia and Fort William, early in Sept. The Cuba is an iron hull, screw steamer, built at Buffalo, N.Y., 1872, having the following dimensions: length, 232 ft.; breadth, 36 ft.; depth, 13 ft.; gross tonnage, 1,526 tons. She is fitted with a double steeple compound engine, cylinders 18 and 36 in. diameter by 36 in. stroke, steam being supplied by two firebox boilers, 8½ by 15 ft. The steamer will be transferred to the Canadian register, and will be re-named Ionic.

The St. Lawrence and Great Lakes Dredging and Wrecking Co. has been incorporated under the Dominion Companies' Act, with a capital of $350,000 and offices at Montreal, to own and operate tugs, dredges, wrecking plant, etc., and to amalgamate with or to acquire shares in companies having similar powers. The provisional directors are: H. W. Prendegrast, Montreal; J. E. Russell, W. J. McWhinney, E. P. Brown, J. F. Lennox, Toronto. The company will acquire the dredge Sir Wilfrid Laurier which was sunk in Lake Ontario in 1904 while being towed from the yard of the Polson Ironworks, Toronto, to Montreal, for delivery to the Dominion Government.

The dock and turning basin which the Dominion Government is about to construct at the Lake Erie end of the Welland canal, will be situated on the east side of the canal, south of Welland and north of the Michigan Central Rd. crossing. The dock will be 1,000 ft. long, built of piles up to the water line, with a concrete superstructure. The turning basin is merely a slip 90 by 120 ft., which will allow a boat to turn around in the canal. The depth of water at the dock will be 14 ft. at lowest water, and vessels lying there will be outside the limits of the canal prism, and will not interfere with navigation. A culvert is also to be constructed from the end of the present culvert near Welland, for over 4,000 ft., to the Michigan Central Rd. tracks. This culvert will be immediately in rear of the dock and turning basin, and is to be built for the purpose of allowing the deep open ditch which now carries the water, to be filled up level with the tow path. The contract for this work has been let to —. Hogan, contractor, at $84,000.

The Farrar Transportation Co. has placed an order on the Georgian Bay for the construction of a steel cargo steamer of 7,500 tons capacity, for delivery June 1, 1907. The plans and specifications have been prepared by H. N. Herriman, of Cleveland, Ohio, who will also inspect the work from time to time for classification purposes. The hull, machinery, electric light plant and general equipment will be of the highest class called for by the Great Lakes Register, which is combined and issued in connection with the Bureau Veritas International Register of Shipping. The general dimensions will be: length, 406 ft. over all, 386 ft. keel; breadth, 50 ft.; moulded depth, 28 ft. She will be fitted with double bottom for water ballast. The engines will be of the vertical triple expansion jet condensing type, cylinders, 21, 35 and 57 in., by 42 in. stroke, to be arranged with the high pressure cylinder in the centre. Steam will be supplied by two Scotch type marine boilers 12 ft. long by 14½ ft. diameter, with three 46 in. furnaces in each, and to be allowed 180 lbs. working pressure.

Manitoba, Saskatchewan, Alberta, Etc.

U.S. press reports state that engineers are in the field running lines for a canal from Lake Superior to Hudson Bay, for J. J. Hill and his associates.

The Department of Public Works is receiving to Sept. 10 tenders for the construction of a concrete lock and dam at St. Andrew's rapids, Red River, near Winnipeg, Man. Tenders have to be accompanied with a deposit of $65,000. The Dominion Government made a start on the work of the improvement of navigation of the Red River in 1900 but for some years nothing has been done.

The Northern Transportation Co., which has, however, not yet been incorporated, is operating two steamers on the Athabasca River and connecting waters. They are the Midnight Sun and the Northern Light, the latter of which was completed this season. We were advised Aug. 15, that the water in the Athabasca and Lesser Slave Rivers, which is the connection between Athabasca Landing and Lesser Slave Lake, has been rather low this season, and the sailings of the steamers have been rather a matter of uncertainty. Capt. C. D. A. Barber, Athabasca Landing, Alta., is manager, and the Alberta Agencies, Ltd., Edmonton, Alta., are agents for the company.

The Department of Marine has published a list of lights and fog signals on the coasts, rivers and lakes of the Dominion corrected to April 1, 1906.

The Canadian barque Edna M. Smith has been held by a British police court magistrate to be a British ship within the terms of the Merchant Shipping Act. The objection to the jurisdiction of the court was raised on behalf of the captain who was charged with assaulting a colored seaman while on the high seas.

The Dominion str. Arctic finally left Quebec, under the command of Capt. Bernier, for a cruise in the Arctic ocean, July 28. The supply str. Adventure sailed from Halifax, N.S., with Major Moodie and a detachment of the Northwest Mounted Police, and supplies for the Dominion posts in Hudson bay, a few days later.

The British Admiralty has issued a new edition (the seventh) of the St. Lawrence pilot, comprising sailing directions for the Gulf and River St. Lawrence, including the western side of Cabot Strait, the Strait of Belle Isle, Chedabucto Bay and the Gulf of Canso, revised to April, 1906. It contains all the matter included in previous editions of the St. Lawrence pilot, vols. one and two, and has been much enlarged and brought up to date. The price is 6s. sterling.

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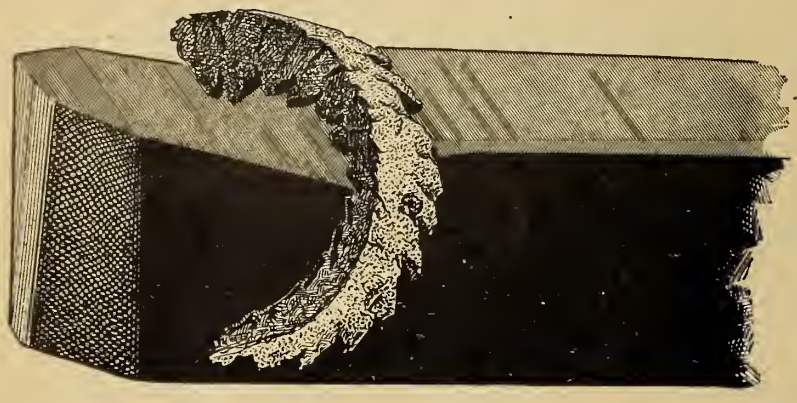

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ESTIMATES PROMPTLY FURNISHED.

The Canadian Pacific Railway Company

Dividends for the half-year ended 30th June, 1906, have been declared as follows:—

On the Preference Stock, two per cent.

On the Common Stock, three per cent.

Warrants for the Common Stock dividend will be mailed on or about October 1st, to shareholders of record at the closing of the books in Montreal, New York and London, respectively.

The Preference Stock dividend will be paid on Monday, October 1st, to shareholders of record at the closing of the books at the Company's London office, No. 62 Charing Cross, London, S.W.

The Common Stock Transfer books will close in Montreal, New York and London, at one p.m. on Saturday, September 1st. The Preference Stock books will also close at one p.m. on Saturday, September 1st.

All books will be re-opened on Thursday, October 4th.

By order of the Board,

CHARLES DRINKWATER,
Secretary.

Montreal, 13th August, 1906.

JAMES PLAYFAIR, Pres. & Gen'l Mgr. — D. L. WHITE, Vice-President. — J. W. BENSON, Sec'y-Treas.

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B.C. and Pacific Coast Marine.

The new str. Petrel, built at Victoria, B.C., for towing the snag boat recently built for the Fraser River, has been completed.

Another steam trawler has been purchased in Great Britain for the halibut fisheries off the B.C. coast, where the Celestial Empire and Flamingo are already in service.

We have been advised that the C.P.R. has not yet made plans for the proposed excursion steamer for the Pacific coast service as recently reported in the daily press at Vancouver, B.C.

The salved German str. Mariechen has been sold to U.S. people for $5,000. She has been temporarily repaired at Victoria, B.C., and will be towed to Seattle, Wash., for permanent repairs. It is proposed to obtain a U.S. registry for the vessel.

The C.P.R. str. Princess Victoria ran into and sunk the Union Steamship Co.'s tug Chehalis, in Burrard Inlet, July 21, eight persons being drowned. Capt. Griffin, of the Princess Victoria, was subsequently arrested on a charge of manslaughter and released on bail. The cause of the collision is being investigated.

British Columbia Timbers, Ltd., has been incorporated under the Dominion Companies' Act, with a capital of $100,000 and offices at Montreal, with power, among other things, to own and operate steamships, and to own and construct wharves, piers, docks, etc. The provisional directors are: A. L. MacLaurin, G. A. Forbes, R. H. Fulton, R. T. Heneker, G. H. Bisset, Montreal.

The Esquimalt and Nanaimo Ry. is having built at Victoria a car-barge for the transfer service between Vancouver and Ladysmith, B.C., in connection with traffic to and from Vancouver Island. The barge is built of Douglas fir, and is very heavily timbered; its dimensions are: length, 250 ft.; breadth, 42 ft.; depth, 12 ft. Its capacity will be 15 loaded cars, each 40 ft. in length.

The Dominion Government has placed a contract for a new steamer for the hydrographic service on the Pacific coast, with the British Columbia Marine Ry., Esquimalt, B.C. The contract price is $143,000; other Canadian firms tendered $191,000 and $202,000, while a British firm bid $107,000. Pressure was, however, brought to bear on the Government to give the contract to a Canadian firm.

It is reported that a steamer has been purchased in Liverpool, Eng., by a Vancouver company, to run on the west coast route. The steamer is stated to have the following general dimensions: length, 173 ft.; breadth, 24 ft. 8 in.; molded depth, 11 ft. 3 in. She is fitted with triple expansion engines, cylinders 15, 23 and 39 in. diameter, by 30 in. stroke; steam being supplied by one tubular boiler at a pressure of 180 lbs. She is capable of steaming 12 knots an hour on a consumption of 9½ tons of coal per day. Accommodation is provided for 22 first cabin; 25 second cabin, and a few steerage passengers; and there is a cargo space for over 400 tons of freight. Capt. Buckholtz and —. Hewett, the company's master and engineer, went to Liverpool recently to inspect the vessel, and to bring her out, if she was found suitable for the trade.

The letters patent issued by the Secretary of State at Ottawa, Nov. 2, 1905, incorporating a company with the title of the Underwriters' Salvage Co. of Canada, have been cancelled.

The Dominion Government has presented a loving cup to Capt. Prager of the U.S. Maine, for the rescue of the crew of the British schooner Kipling off the Grand Banks of Newfoundland in Jan., 1906.

The Gaspesien Collision at Montreal

Commander Spain, R.N., Dominion Wreck Commissioner, assisted by Capt. Archibald Reid, master mariner, and L. Z. Bouille, branch pilot for and below Montreal harbor, held an investigation in Montreal July 24 into the collision between the S.S. Gaspesien, owned by F. Bonchard et al, of Quebec, and floating elevator 7 in Montreal harbor July 5. The following judgment was delivered Aug. 4:

That the S.S. Gaspesien while in the stream proceeding to her berth at the Victoria pier, was run into, and serious damage resulted by floating elevator no. 7, From the evidence it appears that the Gaspesien was following the usual course adopted by vessels passing from the canal and Windmill Point to Victoria pier, and the master was handling his vessel with care, giving the necessary signal to indicate his course as soon as he saw elevator 7 coming out of the basin at the end of Victoria pier. The court considers that the master of floating elevator 7, when coming out of the basin inside of Victoria pier, should have ascertained more carefully that no vessels were coming down outside the said pier, and should have proceeded slowly until satisfying himself there was nothing in the way. Floating elevator 7 would appear to have unmoored from the upper inner end of the Victoria pier, turned round, gathering way as she proceeded out of the basin, no doubt intending to come round the end of Victoria pier on her port helm and proceed up the harbor. The speed with which she was travelling when the Gaspesien was first sighted, carried her out until she encountered the current, which, striking her on the starboard bow, counteracted the effect of her port helm, causing her to go straight out for and into the side of the Gaspesien. The Gaspesien blew her whistle to attract the attention of the people on board floating elevator 7 as soon as she was sighted, but the elevator does not appear to have whistled or made any signal when she was coming out of the basin. From the evidence, the court considers floating elevator 7 to blame for the collision, inasmuch as the master did not exercise the caution he should have done in coming out of the basin, nor did he make any sound signal to warn vessels passing outside of the Victoria pier that she was coming out of the basin. The court also finds that the master and officers of the Gaspesien are in no way to blame for the casualty. The Gaspesien being the descending vessel in the force of the current, had the right of way, and from the appearance of the fracture in the port side of the S.S. Gaspesien about midships, and also from the appearance of the stem of floating elevator 7, the collision must have been at or near a right angle, or in other words, the elevator must have struck the steamer nearly stem on. The court wishes to draw the attention of the authorities to the fact that Edmond Frechette, master of floating elevator 7, has no certificate whatever, and appears to have very slight knowledge indeed of harbor navigation, rules of the road, or sound signals. The engineer has also no certificate. It appears to the court absolutely necessary that some amendment should be made to the port by-laws of Montreal harbor, by which these floating elevators would be brought more under control.

The Canada Quarry and Transportation Co. has been incorporated under the Dominion Companies' Act, with a capital of $20,000 and offices at Montreal, and is empowered in connection with its business to own and operate dredges, tugs, barges, etc. The provisional directors are: T. Gauthier, L. Leger, Lachine, Que.; V. Lamarche, E. A. D. Morgan, Montreal.

Patrol Steamboat for Hudson Bay.

The Dominion Government has had built at its shipyard at Sorel, Que., a steamboat, the Rouville, for use in Hudson Bay by the Royal Northwest Mounted Police. Her length over all is 130 ft., length of keel 96 ft., breadth outside 26 ft., moulded depth 16 ft., draught (maximum) 13 ft. She was built somewhat after the lines of the vessel built for Lieut. Peary for Arctic services, close or double framed, with the spaces filled in solid with prepared pitch cement, close ceiled and planked with hardwoods, oak and elm, seams and butt all caulked solid, hold fitted with two strongly built steel watertight bulkheads over heavy side and bilge stringers, all strongly fastened with iron and through bolted in every part. The stem and stern post are both protected with iron nose and the sides covered to about turn of bilge with iron plate to prevent chafe to the planking when caught in ice. The walls of the deck houses are made double with dead air spaces to protect the inside finish from condensation when the air is cold outside, also double windows. A pilot house is fitted with all round lookout and covers the steam steering wheel; it also contains a chart room for the navigating officer. The whole ship is heated in the ordinary way by steam pipes, supplemented by stoves. The vessel is schooner rigged and fitted with auxiliary sail power for use when it can be set to advantage, and will be fully equipped for such emergencies as may occur in navigating the shores of Hudson Bay.

The machinery consists of one fore and aft compound engine 18 and 36 by 24 in. stroke, making 150 revolutions a minute; steam is supplied by one marine return tubular boiler, diameter 12½ ft., length 10 ft.; the working pressure allowed is 140 lbs.; diameter of screw propeller 8½ ft., pitch 11 ft.

Accommodation has been provided for a crew of 16, including the officers, also with quarters for the chief of the police and secretary, 2 sergeants and 4 men, separate from the crew.

Notices to Mariners.

The Department of Marine has issued the following notices to mariners:

No. 74. June 29—New Brunswick—166. Bay of Fundy, Grand Manan Island, Long Eddy point, change in sounding of fog alarm. Nova Scotia.—167. South coast, St. Margaret Bay, buoys established. 168. South coast, off White Point ledge, whistling buoy established. 169. Cape Breton Island, east coast, Mainadieu passage, off Bar reef, whistling buoy established. 170. Cape Breton Island, east coast, Mainadieu bay, Mad Dick shoal, buoy established. 171. Cape Breton Island, east coast, Morien or Cow bay, Cow reef, bell buoy established. Prince Edward Island—172. South coast, Hillsborough bay, Charlottetown harbor, light not shown temporarily from Brighton beach front range lighthouse.

No. 75. July 4.—Ontario—175. Lake Ontario, Welland canal entrance, Port Dalhousie, change in character of range lights.

No. 76. July 4.—British Columbia—176. Vancouver Island, south coast, Juan de Fuca Strait, fish traps. 177. Quatsino sound, Monday shoal, uncharted rock.

No. 77. July 5.—Nova Scotia—178. South coast, approach to Halifax, submarine bell established. 179. East coast of Cape Breton Island, Mainadieu passage, wreck of str Baines Hawkins.

No. 78. July 6.—Ontario—180. Lake Erie, Long point, new fog alarm in operation.

No. 79. July 9.—Quebec—181. Gulf of St. Lawrence, Gaspe coast, Martin River, fog alarm established.

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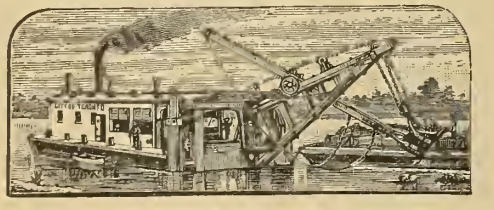

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No. 80. July 10.—Quebec—182. River St. Lawrence, chart Ile aux Foins to Ile de Grace issued.

No 81. July 11.—Quebec—183. Gulf of St. Lawrence, Cape Rosier, change in fog alarm.

No. 82. July 13.—Gulf and River St. Lawrence—184. New edition of St. Lawrence pilot issued by the British Admiralty. Nova Scotia—185. Bay of Fundy, Digby Gut, Annapolis basin and river, buoys established. 186. Bay of Fundy, Annapolis, Belliveau Cove, Meteghan River, Port Maitland, lights improved. 187. South coast, Port Latour, buoys established. 188. South coast, Indian harbor, Musquodoboit harbor, range lights improved. 189. Cape Breton Island, Little Lorraine, Caveau point and Iona lights improved.

No. 83. July 16.—British Columbia—190. Vancouver Island, Clayoquot sound, Templar channel, change in buoy. 191. Juan de Fuca strait, Race rocks, improvement in light. 192. Hoskyn inlet, off entrance to Village bay, uncharted dangers.

No. 84. July 17.—Nova Scotia—195. Bay of Fundy, Lurcher shoal, lightship to be removed temporarily from her station for repairs. 196. East coast, Cow ledge, Calf island, buoys established.

No. 85. July 25.—Quebec—New Brunswick—199. Restigouche river, gas buoys established.

No. 86. July 28.—Quebec—203. Strait of Belle Isle, western end, Greenly island, change in fog alarm.

No. 87. July 30.—Nova Scotia—204. South coast, Sambro, temporary light to be exhibited. 205. South coast, whistling buoys replaced by gas and whistling buoys.

No. 88. Aug. 1.—British Columbia—207. Sutley channel, Pasley passage, uncharted rock. 208. Chatham sound, Prince Rupert harbor, Tuck inlet, Kestrel rock discovered off Luna point.

No. 89. Aug. 2.—Nova Scotia—210. South coast, Halifax harbor, Mauger beach, change in fog alarm.

No. 90. Aug. 4.—Ontario—212. Detroit river, Belle Isle, wreck to eastward, light exhibited. 213. Georgian bay, south side, Meaford, light on breakwater. 214. Georgian bay, Lonely island, temporary light.

No. 91. Aug. 7.—Quebec—216. Chaleur bay, Macquereau point, lighthouse rebuilt.

The following have been issued by the United States Hydrographic Department:

No. 31. Aug. 4.—Lake Huron—1305. Thunder bay Island lighthouse, wreck to northward removed. Lake St. Clair—1306. St. Clair river, wreck removed.

No. 33. Aug. 18.—Lake Ontario—1409. Niagara river entrance, Fort Niagara shoal buoy, corrected position.

Among the Express Companies.

W. S. Stout, President Dominion Ex. Co., was re-elected a member of the Executive Committee of the Express Mutual Benefit Association at its annual convention.

In addition to the points mentioned on pg. 493 of our Aug. issue, to which unapprised merchandise from Canada may be sent through to the United States, express matter may now be sent through Buffalo and Rouse's Point, N.Y., and Port Huron, Mich.

The Amercian Ex. Co. and the National Ex. Co. have been authorized to do business in Quebec under the terms of the provincial laws. The principal place of business is at Montreal, and J. S. Patch, General Agent of the Canadian Express Co., is named as the chief agent.

The Canadian Ex. Co. has made some concessions to the demands for increases of remuneration made by the I.C.R. station agents handling express matter, and at a meeting of the agents' committee at St. John, N.B., Aug. 11, the terms were agreed to, the only point upon which there was a difference being as to the reinstatement of W. Simpson at Petitcodiac, N.B.

G. E. Whitney, Route Agent Dominion Express Co. at Montreal, has been transferred to the Atlantic Division, and has in his charge all offices on the C.P.R. lines north of the St. Lawrence River from, but not including, Hull, Que., to Quebec City, and branch lines running north, also offices on the Great Northern Ry. between Montfort Jct. and Huberdeau, Que., all offices south of the St. Lawrence River, including Montreal, Montreal Jct. and stations on all lines in Quebec as far as and including Lennoxville, all offices on the Quebec Southern Ry. between Sorel and Noyan Jct., and all offices on the Orford Mountain Ry. His headquarters are in Montreal and his appointment is a new one in this division.

The territory which J. Blackhall, heretofore secretary to the President and General Manager, has been appointed to take charge of as route agent, in the Eastern Division, Dominion Ex. Co., includes all offices on C.P.R. lines between the following points: Dorval, Que., to Leaside Jct., Ont.; Burketon to Bobcaygeon, Ont.; Ottawa to Prescott, Ont.; Ottawa, Ont., to Waltham, Que.; Vaudreuil, Que., to Ottawa; Smith's Falls to Brockville, Ont.; Ottawa to Maniwaki, Que.; all offices on Central Ontario Ry., Bay of Quinte Ry., and Brockville, Westport and Northwestern Ry., as well as the following stage routes: Myrtle and Oshawa, Havelock and Campbellford, Vankleek Hill and Hawkesbury, Ivanhoe and Belleville, Ivanhoe and Madoc, Norwood and Warkworth, Green Valley and Alexandria, Central Ontario Jct. and Marmora, Ont.

Sault Ste. Marie Canals Traffic

The following commerce passed through the Sault Ste. Marie canals in July, 1906:

ARTICLES			CANADIAN CANAL	U. S. CANAL	TOTAL
Copper	Eastbound	Net tons	2,539	15,817	18,356
Grain	"	Bushels	1,730,172	3,006,081	4,736,253
Building Stone	"	Net tons	.....	640	640
Flour	"	Barrels	272,228	380,174	652,402
Iron Ore	"	Net tons	383,383	5,268,475	5,651,858
Iron, Pig	"	Net tons	.....	5,898	5,898
Lumber	"	M. ft. B.M.	7,429	144,763	152,192
Silver Ore	"	Net tons	.....	.....	.....
Wheat	"	Bushels	3,070,660	1,865,851	4,936,511
General Merchandise	"	Net tons	6,775	8,941	15,716
Passengers	"	Number	3,514	3,857	7,371
Coal, hard	Westbound	Net tons	15,769	114,005	129,774
Coal, soft	"	Net tons	128,609	1,008,782	1,137,391
Flour	"	Barrels	.....	54	54
Manufactured Iron	"	Net tons	8,155	43,024	51,179
Salt	"	Barrels	17,986	38,504	56,490
General Merchandise	"	Net tons	70,752	61,591	132,343
Passengers	"	Number	3,360	4,703	8,063
Freight:					
Eastbound		Net tons	565,752	5,707,982	6,273,734
Westbound		Net tons	225,855	1,233,182	1,459,037
Total freight		Net tons	791,607	6,941,164	7,732,771
Vessel Passages		Number	796	2,569	3,365
Registered Tonnage		Net tons	788,688	[5,255,268	6,043.956

Telegraph and Cable Matters.

Telegraph offices have been opened at Placentia, and Spaniards' Bay, Nfld.

The telegraph cable to the Magdalen Islands, Que., has been repaired, and communication was restored July 26.

The C.P.R. Telegraph Department is now routing its messages to St. Pierre, Miquelon, via New York, the rate being the same as via Canso, N.S.

Forest fires in northern British Columbia have destroyed large stretches of the Dominion Government telegraph line between Ashcroft and the Yukon Territory.

The Dominion De Forest Wireless Telegraph Co. is erecting a station at Sault Ste. Marie, Ont., which it was stated would be open for public business by Aug. 30.

The C.P.R. Telegraph Department has opened offices at Balmoral, Man,; Elmira, Kalmar, Romford, Wissenburg, Ont.; and has closed its office at Theodore, Sask.

The Dominion Government telegraph line was reported recently by the Marconi Wireless telegraph station at Fame Point, Que., to be broken down between Fame Point and Little Metis, Que.

The Marconi Wireless Telegraph Co. has opened a station at Venison Island, on the Labrador coast. The tariff to and from places in Newfoundland and Labrador is 70c. for the first 10 words and 5c. for each additional word.

S. Edwards, who has been appointed Assistant Superintendent of Telegraphs, C.P.R. Co.'s Telegraphs, Western lines, Western Division, Calgary, Alta., was presented recently with an address and a purse of $300 by the staff of the telegraph construction department at Winnipeg.

Sir Sanford Fleming, speaking at the Eighty Club in London, Eng., recently, advocated the construction of a system of state-owned cables connecting all parts of the empire, affording free distribution of news and information. Such a system he thought would be self-sustaining by its other business.

The Dominion Parliament last session voted $67,400 to establish additional Marconi wireless telegraph stations in connection with the lighthouse and coast service, and $3,500 to establish two wireless telegraph stations as an alternative to the submarine cable connection at Grosse Isle quarantine station, Que.

The C.P.R. Telegraph Department has strung a copper wire between Montreal and Winnipeg, and transposed it with a similar copper wire which was strung some time ago. This is understood to be in connection with the proposed operation of the telegraphone system on the line, which is under consideration.

A statue of the late J. W. Mackay, President of the Postal Telegraph Co., and of the Commercial Cable Co., will be unveiled at the Nevada State University, Reno, Nev., in Nov. The statue is the gift of the widow and son, the latter of whom has also given a donation of $50,000 for a mining building at the University.

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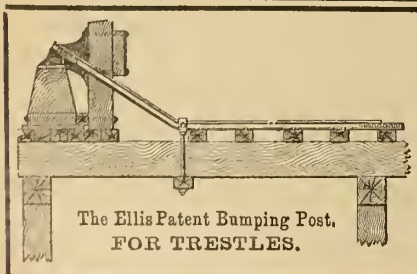
References:—Canada Car Co., Grand Trunk Ry., Temiskaming & Northern Ontario Ry., James Bay Ry.
HEAD OFFICE, LONDON, ONTARIO



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THE OWEN SOUND Dry Dock and Shipbuilding Co. Limited

Offers have been made to the Dominion Government by the Marconi Wireless Telegraph Co., and the DeForest Wireless Telegraph Companies, to instal wireless telegraphic communication between Quesnelle, B.C., and Whitehorse, Yukon, about 1,200 miles. The Government telegraph line over this stretch of country is frequently interrupted from various causes, and its repair and maintenance is a source of heavy expense.

The registered address, Expanse, of the Marconi Wireless Telegraph Co., at Crookhaven and Rosslare, Ireland; and Lizard, England, has been cancelled. In future messages for these stations, as well as the other stations of the company, should be addressed to the different stations at Crookhaven, Rosslare, Lizard, North Foreland, Nirton, Poldhu, using the name of the place followed by the words wireless station.

The General Superintendent of the C.P.R. Co.'s Telegraphs, Western lines, has announced the abolition of the office of Superintendent of Telegraph Construction and Maintenance at Winnipeg, and the following appointments: Jno. Tait, as Superintendent of Telegraphs, Central Division, with office at Winnipeg; Jno. McMillan, as Assistant Superintendent of Telegraphs, Central Division, at Winnipeg; and S. Edwards, as Assistant Superintendent of Telegraphs, Western Division, at Calgary, Alta.

Jas. Kent, Manager of the C.P.R. Telegraph Department, accompanied by W. J. Camp, Electrical Engineer, recently returned to Montreal from a trip of inspection in the west. In an interview, Mr. Kent said: "Our telegraph property and equipment is in splendid condition and every facility has been provided for handling the increased volume of business when the coming wheat crop is harvested. We are busy extending the telegraph lines west, owing to the increased demands of the situation, and the many extensions of railway out there. We have strung about 4,000 miles of copper wire during the present season throughout the Northwest and British Columbia. The volume of business is growing steadily and rapidly throughout Western Canada.

The Dominion Parliament last session granted the following sums for maintenance and construction of its various telegraph lines on account of collection of revenue:

Prince Edward Island and mainland	$ 5,250
Land and cable lines, Lower St. Lawrence and Maritime Provinces, including working expenses of cable vessels and Belle Island Marconi station	119,000
Northwest Territories	21,000
British Columbia	20,550
Ashcroft-Dawson line	138,750
Telegraph lines generally	1,900

The Purchasing Agents' Guide

To the Manufacturers of & Dealers in Steam & Electric Railway, Marine, Grain Elevator, Express, Telegraph, Telephone and Contractors' Supplies, &c.

Accident Insurance
Accident & Guarantee Co. of Canada, ...Montreal.
Canadian Ry. Accident Ins. Co. .....Ottawa, Ont.

Aerated Waters
E. L. Drewry .....Winnipeg.

Air Brakes and Fittings
Canada Foundry Co. .....Toronto.
Canadian Westinghouse Co. .....Hamilton, Ont.

Air Compressors
N. J. Holden Co. .....Montreal.

Ales
E. L. Drewry .....Winnipeg.

Axes
James Smart Mfg. Co. .....Brockville, Ont.

Axe Steel
Montreal Steel Works .....Montreal.

Axles
James Hutton & Co. .....Montreal.
B. M. Jones & Co., Inc. .....Boston and New York.
Jas. W. Pyke & Co. .....Montreal.
Rhodes, Curry & Co. .....Amherst, N.S.

Bearings, Side
Chicago Railway Equipment Co. ....Chicago, Ill.

Belting, Rubber
The Canadian Rubber Co. of Montreal.

Blankets and Bedding
The Hudson's Bay Co. .....

Block Signals
General Railway Signal Co. .....Buffalo, N.Y.

Boiler Compound
N. J. Holden Co. .....Montreal.

Boiler Covering
Mica Boiler Covering Co. .....Montreal.

Boilers
Babcock & Wilcox (Ltd) .....Montreal.
Canada Foundry Co. .....Toronto.
Hall Engineering Works .....Montreal.
Polson Iron Works .....Toronto.
Robb Engineering Co. .....Amherst N.S.

Boilers, Internally Fired
Robb Engineering Co. .....Amherst, N.S.

Boilers, Portable
Canada Foundry Co. .....Toronto.
H. W. Petrie .....Toronto.
Robb Engineering Co. .....Amherst, N.S.

Boilers, Stationary and Marine
Babcock & Wilcox (Ltd.) .....Montreal.
Canada Foundry Co. .....Toronto.
H. W. Petrie .....Toronto
Robb Engineering Co. .....Amherst, N.S.

Boilers, Steam
Babcock & Wilcox (Ltd.) .....Montreal.
H. W. Petrie .....Toronto
Robb Engineering Co. .....Amherst, N.S.

Boilers, Water Tube
Babcock & Wilcox (Ltd.) .....Montreal.
Robb Engineering Co. .....Amherst, N.S.

Boiler Tubes
Jas. W. Pyke & Co. .....Montreal.

Bolsters
Simplex Railway Appliance Co. .....Montreal.

Bolts, Bridge
Canada Foundry Co. .....Toronto.
Toronto Bolt and Forging Co. .....Toronto.

Bolts, Carriage and Machine
Toronto Bolt and Forging Co .....Toronto

Bolts, Track
Canada Foundry Co. .....Toronto.
Toronto Bolt and Forging Co. .....Toronto.

Box Car Loaders
W. H. C. Mussen & Co .....Montreal

Brake Beams
Chicago Railway Equipment Co. .....Chicago, Ill.
Simplex Railway Appliance Co. .....Montreal.

Brake Shoes
American Brake Shoe & F'dry Co. ....Mahwah N.J.
Canadian Iron and Foundry Co. .....Montreal.
N. J. Holden Co. .....Montreal.

Brass and Copper Cloth
The B. Greening Co. .....Hamilton, Ont.

Bridge Numbers
Acton Burrows Limited .....Toronto.

Bridges
Canada Foundry Co. .....Toronto.
Canadian Bridge Co .....Walkerville, Ont.
Dominion Bridge Co. .....Montreal.
Steel Concrete Co. (Ltd.) .....Montreal.

Buckets
Cyclopean Iron Works Co. .....Jersey City, N.J

Bumping Posts
Mechanical Mfg. Co. .....Chicago, Ill.

Buoy Lighting
Safety Car Heating and Lighting Co ....NewYork.
Willson Gas Buoy Co. .....Ottawa, Ont.

Cables, Electric and Feeder
E. F. Phillips Electrical Works, Ltd. ....Montreal.
The Wire and Cable Co. .....Montreal.

Caboose Heaters
Geo. R. Prowse .....Montreal.

Calendars
Rolph & Clark (Ltd.) .....Toronto.

Car Castings
American Brake Shoe & F'dry Co. ....Mahwah, N.J.
Canadian Iron and Foundry Co. .....Montreal.

Car Closets
Duner Co .....Chicago, Ill.

Car Fittings
The Robert Mitchell Co. .....Montreal.

Car Heating
Wm. C. Baker Heating & Supply Co. ....New York.
Safety Car Heating and Lighting Co. ....New York.

Car Jacks
F. H. Hopkins & Co. .....Montreal.
W. H. C. Mussen & Co. .....Montreal.

Car Kitchen Equipments
Geo. R. Prowse .....Montreal.

Car Lighting
Safety Car Heating and Lighting Co. ....NewYork.

Car Movers
N. J. Holden Co. .....Montreal.
F. H. Hopkins & Co. .....Montreal.
W. H. C. Mussen & Co. .....Montreal.

Car Ranges
Geo. R. Prowse .....Montreal.

Car Replacers
Alexander Car Replacer Mfg. Co. .....Scranton, Pa.
N. J. Holden Co. .....Montreal.
F. H. Hopkins & Co. .....Montreal.

Cars
American Palace Car Co. ....New York & Toronto.
Crossen Car Mfg. Co. .....Cobourg, Ont.
Dominion Steel Car Co. .....Montreal.
Rhodes, Curry & Co. .....Amherst, N.S.

Car Upholstery
N. J. Holden Co. .....Montreal.

Car Windows
O. M. Edwards .....Syracuse N.Y.

Castings
Crossen Car Mfg. Co. .....Cobourg, Ont.

Castings, Brass
Canadian Bronze Co. .....Montreal.
Canadian Iron and Foundry Co. .....Montreal.
Kerr Engine Co. .....Walkerville, Ont
St. Thomas Brass Co. .....St. Thomas, Ont

Castings, Iron
Canadian Iron and Foundry Co. .....Montreal.
Kerr Engine Co .....Walkerville Ont.

Castings, Iron and Steel
American Brake Shoe & F'dry Co. ....Mahwah, N.J.

Castings, Steel
Canadian Iron and Foundry Co. .....Montreal.
W. Kennedy & Sons, Ltd. .....Owen Sound, Ont.
Montreal Steel Works. .....Montreal.
Rhodes, Curry & Co. .....Amherst, N.S.

Cast-Steel Hammers
American Brake Shoe & F'dry Co. .... Mahwah, N.J.

Cast-Steel Track Tools
American Brake Shoe & F'dry Co. ....Mahwah, N.J.

Cast-Steel Wrenches
American Brake Shoe & F'dry Co. ....Mahwah, N.J.

Cement Machinery
Jas. W. Pyke & Co. .....Montreal

Chains
B. J. Coghlin & Co. .....Montreal

Chimneys
Steel Concrete Co. (Ltd.) .....Montreal

Coal Haulage Ropes
The B. Greening Co. .....Hamilton, Ont

Coal Storage Plants
Steel Concrete Co. (Ltd.) .....Montreal.

Coil Spring Wire
New Brunswick Wire Fence Co. .... Moncton, N.B.

Compasses
J. Leckie Limited .....Toronto.

Concrete Construction
Forest City Paving & Construction Co., London, Ont.

Concrete Mixers and Rock Crushers
Goold, Shapley & Muir Co. .....Brantford, Ont.
E. F. Dartnell .....Montreal.
F. H. Hopkins & Co. .....Montreal.
W. H. C. Mussen & Co. .....Montreal.
Toronto Pressed Steel Co. .....Toronto.

Concrete Pipe
Steel Concrete Co. (Ltd.) .....Montreal.

Contractors
Forest City Paving & Construction Co., London, Ont
A. B. Ormsby (Limited) .....Toronto.

Extension to lines in Cape Breton Island..$	3,100
Extension of Mabou, Cheticamp and Meat Cove line to Bay St. Lawrence, N.S.....	2,000
Office at Bay St. Lawrence, N.S.....	1,000
Repairs, etc., to line North Shore St. Lawrence Que.....	3,000
Landline Sacre Cœur, River Saguenay, Que.	4,285
Repairs and renewals Baie St. Paul and St. Alexis, Que.....	1,000
Line to Chateau Bay, Que.....	750
Office at Victoria, Qu'Appelle-Edmonton line	200
Office at Athabasca Landing, Alta.....	1,100
To complete payments Willow Bunch, Sask. line.....	500
Renewing poles Northwest Territories.....	2,500
Reconstruction Qu'Appelle-Edmonton line..	1,200
Extension to Kamsack, Sask.....	600
Repoling Kamloops-Nicola line, B.C.....	3,000
Extension of line to Penticton, B.C.....	8,500
Work on Ashcroft-Bakerville line.....	5,513
Repairs Ashcroft-Bakerville line.....	500
Repairs Quesnelle-Bakerville line.....	750

General Telephone Matters.

The Bell Telephone Co. is arranging to erect local exchanges and offices at Regina, Sask., and Calgary, Alta.

The Bell Telephone Co. is arranging to extend its lines from Winnipeg to St. Agathe and Union Point, Man.

R. S. Jones has been appointed Local Manager at Montreal for the Bell Telephone Co., succeeding D. C. Dewar, who died recently.

The B.C. Telephone Co. is extending its lines in the Chilliwack Valley, and it is expected that an exchange will be opened at Chilliwack, B.C., early in Sept.

The New Brunswick Telephone Co., at a meeting held at Fredericton, July 26, authorized the increase of the capital stock from $650,000 to $1,000,000. It is understood that the new stock will be allotted to the present shareholders.

The American Machine Telephone Co. has been granted supplemental letters patent under the Dominion Companies' Act, increasing its capital from $450,000 to $5,000,000 and changing its corporate name to the Canadian Independent Telephone Co.

The Alberta Government has granted permission to the Rural Telephone Co., operating at Medicine Hat, to carry its lines across the government road allowances to points in the Cypress Hills country. Construction will be gone on with at once, and the line is expected to be completed in the fall.

A meeting of shareholders of the Eastern Telephone Co. was held at Sydney, N.S., July 27, for the purpose of ratifying an agreement for the sale of the company's lines and undertaking to the Nova Scotia Telephone Co. The N. S. Telephone Co. owns a large proportion of the capital stock of the E. T. Co.

The Niagara District Telephone Co. has been incorporated under the Ontario Companies' Act, with a capital of $10,000, and offices at Jordan, Ont., to carry on the business of a telephone company in Lincoln county and in Saltfleet tp., Welland county. The provisional directors are C. Wismer, A. Moyer, A. Culp, E. Werner, and A. Troup.

The Bell Telephone Co.'s shareholders of record, Aug. 31, have been offered one share of new stock for every nine shares now held, the price of the new stock being $125, payable $50 on Oct. 1, and three instalments of $25 each, on Nov. 1 and Dec. 1, 1906, and Jan. 2, 1907. The new issue will increase the capital form $9,000,000 to $10,000,000.

The Bell Telephone Co. has completed making connections on Wolfe Island, Ont., with a new cable run under the St. Lawrence River, from Cape Vincent, by the Central New York Telephone and Telegraph Co. This gives a direct connection between Kingston, Ont., and points in New York State, instead of the former roundabout route via Prescott, Ont.

The New Brunswick Telephone Co. and the Central Telephone Co. were fighting for business in various parts of the province. On July 31, the N.B. Telephone Co. issued an order not to accept messages to or from the Central Telephone Co. except to St. John, Fredericton and Moncton, and then only to the N.B.T. Co.'s subscribers. The C.T. Co. has completed its lines to a connection with the Cumberland Telephone Co.'s lines at Missiquash, and proposes to construct a line into Newcastle. It is also arranging to obtain an entrance into Moncton, and negotiations are going on with the St. John City Council for an entrance into that city. Meetings of the directors of the two companies were held Aug. 20, when resolutions favorable to amalgamation were passed, and at meetings held on the following day, the final arrangements were made for the taking over of the property, franchises, etc., of the Central Telephone Co. by the New Brunswick Telephone Co. Certain directors of the C.T. Co. will be on the new board, and the shareholders will receive par value of new stock to the amount of their shares. Each company has at present about $360,000 of stock issued, so that the combined capital will be about $720,000. Meetings of the shareholders of the two companies have to be called to ratify the amalgamation.

THE GRAND TRUNK RY. CO. OF CANADA

Notice is hereby given, that the Ordinary General Half-yearly Meeting of the Grand Trunk Railway Company of Canada will be held at the City Terminus Hotel, Cannon Street, London, E.C., on Thursday, the 11th day of October, 1906, at 12 o'clock noon precisely, for the purpose of receiving a report from the Directors, and for the transaction of other business of the Company.

Notice is also given, that the Transfer Books of the Company will be closed from Monday, the 10th day of September, to the day of Meeting, both days inclusive.

By order,

C. RIVERS WILSON, *President.*
H. H. NORMAN, *Secretary.*

Dashwood House, 9 New Broad Street,
London, E.C., 31st Aug., 1906.

CANADIAN PACIFIC RAILWAY COMPANY.

NOTICE TO SHAREHOLDERS.

The twenty-fifth annual meeting of the shareholders of this company for the election of the directors, to take the places of the retiring directors, and the transaction of business generally, will be held on Wednesday, the third day of October next, at the principal office of the Company at Montreal, at twelve o'clock noon.

The Common Stock Transfer Books will close in Montreal, New York and London, at one p.m., on Saturday, September first. The Preference Stock Books will also close at one p.m., on Saturday, first September.

All books will be re-opened on Thursday, fourth October.

By order of the Board.

CHAS. DRINKWATER,
Montreal, August 24th, 1906. *Secretary.*

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Equalizing, Draw-bar, Buffer and Spiral Springs of all kinds
Street Railway Springs from the largest to the smallest
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Contractors' Plant
M. Beatty & Sons.....Welland, Ont.
F. H. Hopkins & Co.....Montreal.
The W. H. Kelson Co.....Montreal.
T. A. Morrison & Co.....Montreal.
W. H. C. Mussen & Co.....Montreal.
Toronto Pressed Steel Co.....Toronto.
Vulcan Iron Works Co.....Toledo, Ohio.

Contractors' Supplies
Cyclopean Iron Works Co.....Jersey City, N.J
E. F. Dartnell.....Montreal.
J. A. Dawson & Co.....Montreal.
F. H. Hopkins & Co.....Montreal.
Rice Lewis & Son.....Toronto.
Toronto Pressed Steel Co.....Toronto.

Conveyors, Coal and Ash
Babcock & Wilcox (Ltd.).....Montreal.

Cooking Apparatus
Geo. R. Prowse.....Montreal.

Copperware
Geo. R. Prowse.....Montreal.

Copying Presses
James Smart Mfg. Co.....Brockville, Ont.

Cordage
McKenzie & Co.....Montreal.

Cotton Duck
McKenzie & Co.....Montreal

Corrugated Furnaces
Continental Iron Works.....Brooklyn, N.Y.

Cross Arms, Top Pins and Side Blocks
Canadian General Electric Co.....Toronto.

Cross Arm Braces
Canadian General Electric Co.....Toronto.
Toronto Bolt and Forging Co.....Toronto.

Crossing Gates
General Railway Signal Co.....Buffalo, N.Y.
The N. L. Piper Railway Supply Co.....Toronto.

Crowbars
B. J. Coghlin & Co.....Montreal.
Toronto Bolt and Forging Co.....Toronto.

Culverts
Forest City Paving & Construction Co., London, Ont.
Steel Concrete Co. (Ltd.).....Montreal.

Culvert Pipe (Cast Iron)
Gartshore-Thompson Pipe & F'dry Co.....Hamilton.

Cuts
Acton Burrows Limited.....Toronto.

Derrick Ropes
Dominion Wire Rope Co.....Montreal.
The B. Greening Co.....Hamilton, Ont.

Derricks
M. Beatty & Sons.....Welland, Ont.
E. F. Dartnell.....Montreal.
W. H. C. Mussen & Co.....Montreal.

Diaphragms
N. J. Holden Co.....Montreal.

Dies
Butterfield & Co.....Rock Island, Que.

Diving Outfits
John Date.....Montreal.
W. H. C. Mussen & Co.....Montreal.

Doors (Ex-Platform Trap)
O. M. Edwards.....Syracuse, N.Y.

Door Signs
Acton Burrows Limited.....Toronto.

Drawing Materials
Eugene Dietzgen Co.....New York.
James Foster.....Toronto.

Dredges
M. Beatty & Sons.....Welland, Ont.
Vulcan Iron Works Co.....Toledo, Ohio.

Drills
W. Abbott.....Montreal.

Dry Goods
The Hudson's Bay Co.....

Dump Cars (Contractors')
F. H. Hopkins & Co.....Montreal.
Toronto Pressed Steel Co.....Toronto.

Dynamo and Electric Castings
American Brake Shoe & F'dry Co.....Mahwah, N.J.

Economizers
Babcock & Wilcox (Ltd.).....Montreal.

Electric Car Fenders
The G. B. Meadows Wire, etc., Co.....Toronto.

Electric Car Route Signs
Acton Burrows Limited.....Toronto.

Electric Car Wire Guards
The G. B. Meadows Wire, etc., Co.....Toronto.

Electric Cranes
Canada Foundry Co.....Toronto.
E. F. Dartnell.....Montreal.
Dominion Bridge Co.....Montreal.
W. H. C. Mussen & Co.....Montreal.

Electric Ry. Brake Shoes
American Brake Shoe & F'dry Co.....Mahwah, N.J.

Electric Ry. Supplies
J. A. Dawson & Co.....Montreal.

Electric Supplies
J. A. Dawson & Co.....Montreal.

Enameled Iron Signs
Acton Burrows Limited.....Toronto.

Engineers, Consulting
W. H. Breithaupt.....Berlin, Ont.

Engineers' Supplies
Canadian Fairbanks Co.....Montreal
The Canadian Rubber Co. of Montreal.

Engines, Automatic
Robb Engineering Co.....Amherst, N.S.

Engines, Corliss
Robb Engineering Co.....Amherst, N.S.

Engines, Gasoline
Canadian Fairbanks Co.....Montreal.
Goold, Shapley & Muir Co.....Brantford, Ont.
Ontario Wind Engine and Pump Co.....Toronto.

Engines, Hoisting
M. Beatty & Sons.....Welland, Ont.

Engines, Stationary and Marine
Canada Foundry Co.....Toronto.
H. W. Petrie.....Toronto.
Polson Iron Works.....Toronto.
Robb Engineering Co.....Amherst, N.S.

Engraving
Rolph & Clark (Ltd.).....Toronto.

Engraving (Copper and Steelplate)
Rolph & Clark (Ltd.).....Toronto.

Excavators
Vulcan Iron Works.....Toledo, Ohio.

Express Office Signs
Acton Burrows Limited.....Toronto.

Feedwater Heaters
Canadian Fairbanks Co.....Montreal.
H. W. Petrie.....Toronto.
Robb Engineering Co.....Amherst, N.S.

Fencing
Banwell-Hoxie Fence Co.....Hamilton, Ont.
Canada Foundry Co.....Toronto.
Canadian Steel and Wire Co.....Hamilton, Ont.
Locked Wire Fence Co.....London, Ont.
New Brunswick Wire Fence Co.....Moncton, N.B.
Owen Sound Wire Fence Co.....Owen Sound, Ont.
Page Wire Fence Co.....Walkerville, Ont.

Fence Staples
New Brunswick Wire Fence Co.....Moncton, N.B.

Fire Brick
W. H. C. Mussen & Co.....Montreal.

Fire Escapes
The G. B. Meadows Wire, etc., Co.....Toronto.

Fireproof Building Material
A. B. Ormsby Limited.....Toronto.

Flags
The Hudson's Bay Co.....

Flour
The Hudson's Bay Co.....

Forgings
Crossen Car Mfg. Co.....Cobourg, Ont.
General Railway Signal Co.....Buffalo, N.Y.
Standard Steel Works.....Philadelphia, Pa.

Gas Buoys
Willson Gas Buoy Co.....Ottawa.

Gas Pipe (Cast Iron)
Gartshore-Thompson Pipe & F'dry Co., Hamilton.

Gates
Banwell-Hoxie Fence Co.....Hamilton, Ont.
Canada Foundry Co.....Toronto.
New Brunswick Wire Fence Co.....Moncton, N.B.
Owen Sound Wire Fence Co.....Owen Sound, Ont.
Page Wire Fence Co.....Walkerville, Ont.

Gears (Heavy)
W. Kennedy & Sons (Ltd.).....Owen Sound, Ont.

Grain Elevators
John S. Metcalfe Co.....Chicago, Ill.

Groceries
The Hudson's Bay Company.....

Hammers
James Smart Mfg. Co.....Brockville, Ont.

Handcars
Crossen Car Mfg. Co.....Cobourg, Ont.
F. H. Hopkins & Co.....Montreal.
W. H. C. Mussen & Co.....Montreal.
Toronto Pressed Steel Co.....Toronto.

Hardware
The Hudson's Bay Company.....

Headlights
N. L. Piper Railway Supply Co.....Toronto.

Headlinings
Crossen Car Mfg. Co.....Cobourg, Ont.

Hoppers, Car, Wet or Dry
Duner Co.....Chicago, Ill.

Hose, Air Brake and Steam
The Canadian Rubber Co. of Montreal.

Hose, Fire
The Canadian Rubber Co. of Montreal.

Hose, Suction
The Canadian Rubber Co. of Montreal.

Hydrants
Kerr Engine Co.....Walkerville, Ont

Illustrations
Acton Burrows Limited.....Toronto.

Inspection Cars
Canada Cycle and Motor Co.....Toronto Junc. Ont.

Inspections
R. W. Hunt & Co.....Montreal.
H. Jarvis & Co.....Chicago, Ill.

Instruments, Surveying and Engineering
Eugene Dietzgen Co.....New York.
James Foster.....Toronto.

Interlocking and Signalling
General Railway Signal Co.....Buffalo, N.Y.

Interlocking Signals
Montreal Steel Works.....Montreal.

Iron
A. C. Leslie & Co.....Montreal.

Iron Fencing
The G. B. Meadows Wire, etc., Co.....Toronto.

Iron, Pig
John McDougall & Co.....Montreal.

Iron Signs
Acton Burrows Limited.....Toronto.

Jacks
James Smart Mfg. Co.....Brockville, Ont.

Japans
McCaskill, Dougall & Co.....Montreal.

Journal Bearings
Canada Foundry Co.....Toronto.
Canadian Bronze Co.....Montreal.
Crossen Car Mfg. Co.....Cobourg, Ont.
Kerr Engine Co.....Walkerville, Ont.
Jas. W. Pyke & Co.....Montreal.
St. Thomas Brass Co.....St. Thomas Ont.

Journal Boxes
N. J. Holden Co.....Montreal.

Lager Beer, &c.
E. L. Drewry.....Winnipeg.

Lamps, Incandescent
Canadian Westinghouse Co.....Hamilton, Ont.

Lamps and Lanterns
The Hudson's Bay Company.....
The Hiram L. Piper Co.....Montreal.
N. L. Piper Railway Supply Co.....Toronto.

Lathes
H. W. Petrie.....Toronto.

Launches
Polson Iron Works.....Toronto.

Lights, Contractors' and Wrecking
F. H. Hopkins & Co.....Montreal.
W. H. C. Mussen & Co.....Montreal.

Lithographing
Rolph & Clark (Ltd.).....Toronto.

Locomotive Driver Brake Shoe
American Brake Shoe & F'dry Co.....Mahwah, N.J.
Canadian Iron and Foundry Co.....Montreal.

Locomotive Lagging and Covering
Canadian Fairbanks Co.....Montreal

Locomotives (Compressed Air)
Canadian Locomotive Co.....Kingston, Ont
Locomotive and Machine Co. of Montreal.

Locomotives (Electric)
Canada Foundry Co.....Toronto
Locomotive and Machine Co. of Montreal.

Locomotives (Logging)
Canadian Locomotive Co.....Kingston Ont.

Locomotives (Rack)
Canadian Locomotive Co.....Kingston, Ont.
Locomotive and Machine Co. of Montreal.

Locomotives (Steam)
Canada Foundry Co.....Toronto.
Canadian Locomotive Co.....Kingston, Ont.
The W. H. Kelson Co.....Montreal.
Locomotive and Machine Co. of Montreal.

Locomotive Stack Netting
The G. B. Meadows Wire, etc., Co.....Toronto.

Machine Tools
W. Abbott.....Montreal.
Canadian Fairbanks Co.....Montreal.
H. W. Petrie.....Toronto.

Machine Screws, Set Cap and Planer
John Morrow Machine Screw Co.....Ingersoll.

Machinery, Marine
Sheriffs Mfg. Co.....Milwaukee, Wis.

Machinery Repairs, Marine
Sheriffs Mfg. Co.....Milwaukee, Wis.

Manganese Steel Castings
Montreal Steel Works.....Montreal.

Manhole Frames and Covers
American Brake Shoe & F'dry Co.....Mahwah, N.J.
Canadian Iron and Foundry Co.....Montreal.

Maps
Rolph & Clark (Ltd.).....Toronto.

Marine Supplies
Rice Lewis & Son.....Toronto.

Mats and Matting
The Canadian Rubber Co. of Montreal.

Metals
A. C. Leslie & Co.....Montreal.

Metal Studding
A. B. Ormsby Limited.....Toronto.

Metal Windows
A. B. Ormsby Limited.....Toronto.

Milepost Numbers
Acton Burrows Limited.....Toronto.

Milling Cutters
W. Abbott.....Montreal.

Milling Machines
H. W. Petrie.....Toronto.

Mills, Boring and Turning
H. W. Petrie.....Toronto.

Mill Tools and Supplies
J. A. Dawson & Co.....Montreal

Motor Cars
Canada Cycle & Motor Co....Toronto Junc., Ont.

Nickel
The Orford Copper Co.....New York.

Nickel for Nickel Steel
The Orford Copper Co.....New York.

Numbers
Acton Burrows Limited.....Toronto.

Nut Locks
Jones Positive Nut Lock Co.....Chicago, Ill.
Positive Lock Washer Co.....Newark, N.J.

Nuts, Cold Pressed
John Morrow Machine Screw Co.....Ingersoll.

Nuts, Square and Hexagon
Canada Foundry Co.....Toronto.
Toronto Bolt and Forging Co.....Toronto.

Oakum
The Hudson's Bay Company.....
McKenzie & Co.....Montreal.

Office Desks
Canadian Office & School Furniture Co., Preston, Ont.

Office Fittings
Canadian Office & School Furniture Co., Preston, Ont.

Office Railings
The G. B. Meadows Wire, etc., Co.....Toronto.

Office Signs
Acton Burrows Limited.....Toronto.

Oils
Canadian Oil Co.....Toronto.
Galena Signal Oil Co., Franklin, Pa., and Toronto.

Packing
The N. L. Piper Railway Supply Co.....Toronto.

Packing, High Pressure Sheet
The Canadian Rubber Co. of Montreal.

Packing, Piston
The Canadian Rubber Co. of Montreal

Paints
Canadian Oil Co.....Toronto.

Paints, Damp Resisting
E. F. Dartnell.....Montreal

Passenger Cars
American Palace Car Co..New York and Toronto.

Pinch Bars
The N. L. Piper Railway Supply Co.....Toronto.

Pipe and Pipe Coverings
Wm. C. Baker Heating & Supply Co..New York.

Pipe Covering
Canadian Fairbanks Co.....Montreal.
Mica Boiler Covering Co.....Montreal.

Pipe Stocks
Butterfield & Co.....Rock Island, Que.

Piston Rods
B. M. Jones & Co., Inc....Boston and New York

Planers
H. W. Petrie.....Toronto

Ploughs, Contractors'
W. H. C. Mussen & Co.....Montreal
Toronto Pressed Steel Co.....Toronto

Pneumatic Tools
N. J. Holden Co.....Montreal.

Porter
E. L. Drewry.....Winnipeg.

Portable Boilers
Babcock & Wilcox (Ltd.).....Montreal.
Canada Foundry Co.....Toronto.
Robb Engineering Co.....Amherst, N.S.

Power Houses
Steel Concrete Co, (Ltd.).....Montreal.

Printing
The Hunter, Rose Co.....Toronto.
The Mail Job Printing Company.....Toronto.

Propeller Wheels
W. Kennedy & Sons (Ltd.).....Owen Sound, Ont.
Sheriffs Manufacturing Co.....Milwaukee, Wis.

Pumps
Canadian Fairbanks Co.....Montreal.
Canada Foundry Co.....Toronto.
Goold, Shapley & Muir Co.....Brantford, Ont.
James Smart Mfg. Co.....Brockville, Ont.

Pumps (Centrifugal)
M. Beatty & Sons.....Welland. Ont.

Rail Benders, Roller
F. H. Hopkins & Co.....Montreal.
Montreal Steel Works.....Montreal.

Rails (new)
Dominion Iron & Steel Co.....Sydney, N.S.
Drummond, McCall & Co.....Montreal.
F. H. Hopkins & Co.....Montreal.
J. J. Gartshore.....Toronto.

Rails (for relaying)
F. H. Hopkins & Co.....Montreal.
J. J. Gartshore.....Toronto.
T. A. Morrison & Co.....Montreal.
W. H. C. Mussen & Co.....Montreal.
Jas. W. Pyke & Co.....Montreal.

Railway Interlocking
General Railway Signal Co.....Buffalo, N.Y.

Rail Joints
Continuous Rail Joint Co. of Canada....Montreal.
N. J. Holden Co.....Montreal.

Railway Pile Drivers
F. H. Hopkins & Co.....Montreal.
W. H. C. Mussen & Co.....Montreal.

Railway Signalling
General Railway Signal Co.....Buffalo, N.Y

Railway Spikes
F. H. Hopkins & Co.....Montreal.

Railway Supplies
J. A. Dawson & Co.....Montreal.
Canadian Fairbanks Co.....Montreal.
The W. H. Kelson Co.....Montreal.
The Hiram L. Piper Co.....Montreal.
The N. L. Piper Railway Supply Co.....Toronto.
Rice Lewis & Son.....Toronto.

Reamers
W. Abbott.....Montreal.
Butterfield & Co.....Rock Island, Que.

Refrigerators
Geo. R. Prowse.....Montreal.

Rivets, Boiler, Bridge and Structural
Canada Foundry Co.....Toronto.
Toronto Bolt and Forging Co.....Toronto

Rolled Wheels
Standard Steel Works.....Philadelphia, Pa.

Roofers
A. B. Ormsby Limited.....Toronto

Roof Trusses
Canada Foundry Co.....Toronto.
Canadian Bridge Co.....Walkerville, Ont.
Dominion Bridge Co.....Montreal.

Rope
F. H. Hopkins & Co.....Montreal.
The Hudson's Bay Co.....
J. Leckie Limited.....Toronto.

Rotary Snow Ploughs
Crossen Car Mfg. Co.....Cobourg, Ont.

Roundhouses
Forest City Paving & Construction Co., London, Ont.
Steel Concrete Co. (Ltd.).....Montreal.

Rubber Tiling, Interlocking
The Canadian Rubber Co. of Montreal.

Sash Balances
O. M. Edwards.....Syracuse, N. Y.

Sash Locks
O. M. Edwards.....Syracuse, N.Y.

Saw Steel
Montreal Steel Works.....Montreal.

Scale Boxes
Cyclopean Iron Works Co.....Jersey City, N.J.

Scrapers (Wheel and Drag)
F. H. Hopkins & Co.....Montreal.
W. H. C. Mussen & Co.....Montreal.
Toronto Pressed Steel Co.....Toronto.

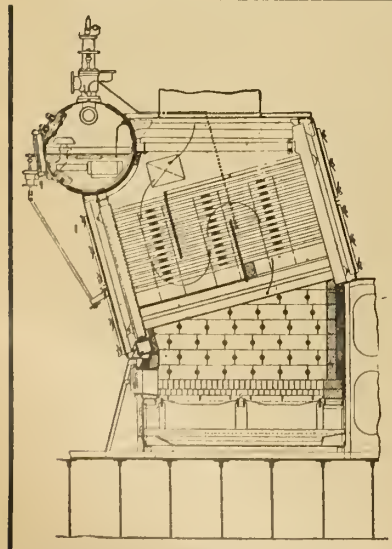
Screw Plates
Butterfield & Co.....Rock Island, Que.

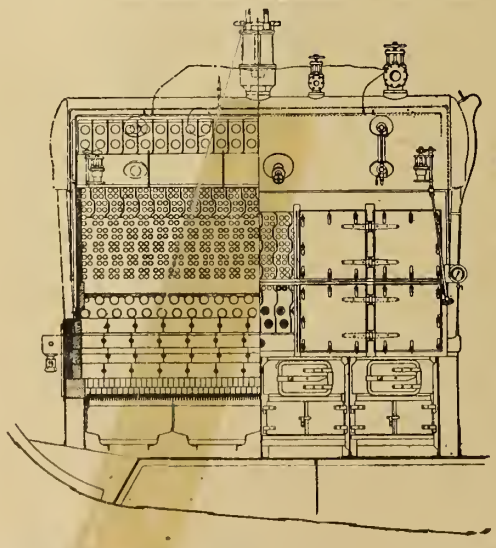
Screws, Coach and Lag
Toronto Bolt and Forging Co.....Toronto.

Semaphore Arms
Acton Burrows Limited.....Toronto.

Semaphores
The N. L. Piper Railway Supply Co.....Toronto.

Sewer Pipe (Cast Iron)
Gartshore-Thompson Pipe & F'dry Co..Hamilton.





BABCOCK & WILCOX
LIMITED

PATENT WATER TUBE BOILERS

For Marine and Stationary Purposes

The cut shows one of the sixteen Babcock & Wilcox Marine Boilers installed in H.M.S. DOMINION, and is the Standard adopted by the British Admiralty.

Head Office for Canada—New York Life Building, MONTREAL

BRANCH—114 KING STREET WEST, TORONTO

See Purchasing Agents' Guide on page 629

See Alphabetical Index to Advertisements on page 601.

THE

Railway and Marine World

With which are incorporated The Western World and The Railway and Shipping World, Established 1890

Devoted to Steam and Electric Railway, Marine, Grain Elevator, Express, Telegraph, Telephone and Contractors' interests

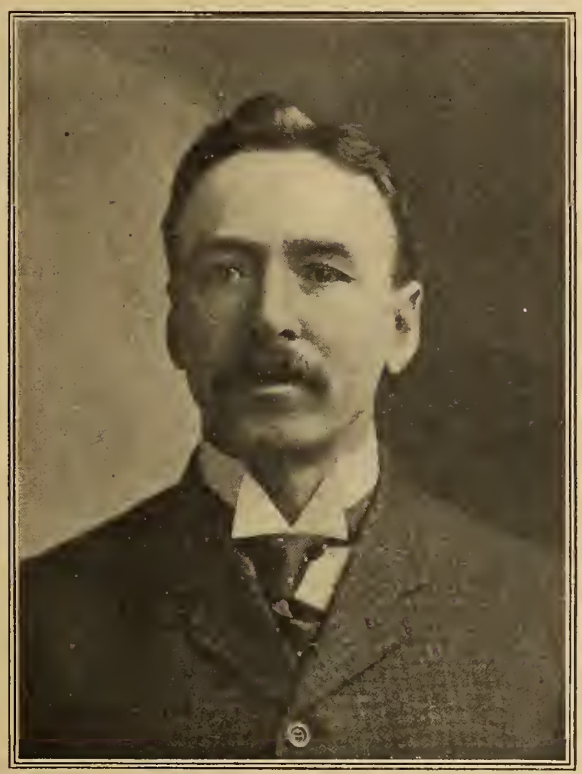
Old Series, No. 186.
New Series, No. 104.

TORONTO, CANADA, OCTOBER, 1906.

Subscription, $1 a Year.
Toronto Postal Delivery, $1.25 a Year.

Quebec Bridge and Railway Co.

In the annual report presented at the annual meeting of shareholders held at Quebec, Sept. 4, the directors said they were pleased to state that considerable progress had been made with the bridge over the River St. Lawrence and its connecting railways, details of which are fully set out in the report of the Chief Engineer annexed. It may be added to this report, said the directors, that as the bridge enterprise develops itself, its growing importance is more distinctly felt as bearing on the future of the seaport of Quebec, and that new and vital questions, which were not and could not be foreseen a few years ago when the company started, are now to be faced. For instance, the Quebec bridge, at first intended as a mere connection between the local network of railways, has become an essential connecting link in the G.T. Pacific system, a large portion of which is being built from Winnipeg to Moncton by the Transcontinental Railway Commission with Dominion money, according to law. The bridge will also be strongly interested in affording first-class terminal facilities to the various railways converging into Quebec and to the ocean steamer lines connecting with them. These are some of the questions which the company will have to study and advise on in concert with the Federal Government and the various interested railway companies. It is needless to point out the importance of providing for such terminal facilities from the bridge eastward to the Louise docks, which involves the construction of docks, wharves and piers, sheds, yards, etc., and it is no wonder that all men of business are taking more and more interest in the bridge undertaking. The company has until now managed with care and economy the execution of the huge works under its control, and the shareholders who have from the start shown enough confidence in the project to invest money in it, will have no cause to regret it, as its ultimate success, even from a pecuniary standpoint, can be safely predicted.



W. A. BROWN,
General Superintendent, Canadian Northern Railway.

Following are extracts from the report of E. A. Hoare, Chief Engineer, which was annexed:

BRIDGE OVER RIVER ST. LAWRENCE—The present condition of the work on this structure can be considered satisfactory. On the south side of the river the work erected to date extends from the shore abutment to a point about 200 ft. beyond the main pier, a total distance of about 900 ft. The quantity of metal erected to date amounts to 11,300 tons. The quantity manufactured in addition to this, in storage at Phœnixville, Pa., and at the bridge site, amounts to 20,700 tons. The weather conditions being good this season, very satisfactory progress has been made by the erecting force. The work is being very carefully and efficiently conducted and great credit is due to the contractors for the completeness of their organization and erecting equipment, and the precautions taken to avoid serious accidents. On the north shore, wharves are being built for the reception of materials in the false work and traveller, used at present on the south side, which are expected to be removed this fall, after the cantilever arm is erected. Preparations are also being made to commence the foundations for the false work on the north side, which will be constructed under air pressure in steel caissons so that the work can proceed continuously at any height of the tide, to be ready for the erection of the north anchor arm next season. By next May it is expected that the manufacture of all the metal will be completed, and the forwarding of the same for the north side commenced and continued until the total quantity is delivered.

RAILWAY APPROACHES—The work for a double-track railway and sidings between the bridge and the Intercolonial Railway, on the south side, is sufficiently completed for service to the bridge. No more work will be done after this date for the present, but will be finished before the road is required for traffic, which will allow time for the high embankments to settle, and where necessary to raise them to grade. The work done this season on the north side of the river consists principally of concrete bridge and culvert work, and erection of steel superstructure of the bridges over highways at Sillery. The roadbed is completed ready for track between the end of the bridge and Ross' Road, and from that point to Sillery Cove the rock excavations have been made and culverts finished, also the bridges over the highways, with the exception of the wooden floors. The work on this section has to be discontinued for a short time, until a connection is made with the Transcontinental Ry. with a ballast pit, to obtain suitable materials for making the embankments; nothing of the kind being available on the company's railway.

The report was adopted on motion of W. Wainwright, seconded by P. B. Dumolin; the retiring directors were re-elected. G. Lefaivre was elected auditor, and some votes of thanks were passed. Following are the officers and directors for the current year. President, S. N. Parent; Vice-President, R. Audette; other directors, H. A. Allan, V. Boswell, G. LeMoine, H. M. Price, Hon. N. Garneau, Hon. J. Sharples; Secretary, U. Barthe; Treasurer, J. H. Paquet.

The special train which is run between the London and North-Western Ry. station at Euston, London, Eng., and the Landing Stage, Liverpool, in connection with the C.P.R. Atlantic steamships, consists of L. and N.W.R. rolling stock, but the train bears C.P.R. labels. It is hoped at some future time to have special C.P.R. rolling stock constructed in Great Britain, and uniform with that in Canada, for this train.

The Newfoundland Legislature at its last session passed an act providing for the imposition of a penalty of $20 upon any person guilty of obstructing a railway officer or servant in the performance of his duty; behaving in a violent or offensive manner, or being drunk, or trespasses on the property of the railway company. The servants of a railway company are authorized to eject any drunken person from its trains or premises, and the conductor may take from such drunken person any liquor he may have in his possession and may destroy it; and it is also provided that a penalty of $20 may be imposed upon a railway company for selling a ticket to a drunken person.

Galena-Signal Oil Company,

Franklin, Pa., and Toronto, Ont.

Sole manufacturers of the celebrated GALENA COACH, ENGINE and CAR OILS, and SIBLEY'S PERFECTION VALVE and SIGNAL OILS.

GUARANTEE COST per thousand miles for from one to five years, when conditions warrant it.

Maintain EXPERT DEPARTMENT, which is an organization of skilled railway mechanics of wide and varied experience. Services of Experts furnished free of charge to patrons interested in the economical use of oils.

STREET RAILWAY LUBRICATION A SPECIALTY.

GALENA RAILWAY SAFETY OIL

Made especially for use in Headlights, Cab, Classification and Tail-lights, and for Switch and Semaphore Lamps. Burns equally well with the long time as with the one day burner, with or without chimney, as the burner requires.

Is pure water white in color; high fire test; low cold test, and splendid gravity.

Please write to home office for further particulars.

CHARLES MILLER,

PRESIDENT.

Duluth, South Shore and Atlantic Ry.

The report of this subsidiary company of the C.P.R. for the year ended June 30, consists of tabular statements which are printed without comment. The main line owned is 517.44 miles; branch lines owned, 65.61 miles; total owned, 583.05 miles; trackage rights leased, 9.64 miles; total operated, 592.69 miles. The only change from the mileages at June 30, 1905, is in the branch lines owned, where there is an increase of 6.88 miles. The company owns 73 locomotives, 62 passenger cars, 2,876 freight cars, and 97 miscellaneous cars. The new rolling stock added during the last financial year consisted of two sleeping cars, 200 box cars, 100 platform cars, 50 gondola cars, and two cabooses. The income account with the years ended June 30, 1905 and 1906, is as follows:

	1905-06.	1904-05.
Gross earnings from operation	$3,057,808.73	$2,706,936.02
Less operating expenses	2,057,459.76	1,852,705.09
Net earnings	$1,000,348.97	$ 854,230.93
Other income	14,536.15	15,774.13
Net income	$1,014,885.12	$ 870,005.06
Deduct—		
Interest on bonds	$ 859,700.00	$ 859,700.00
Interest on current liabilities	19,061.67	123.78
Taxes	292,471.22	216,733.73
Total	$1,171,187.89	$1,076,557.51
Balance	Deficit 156,302 77	De. 206,552.45

EARNINGS AND OPERATING EXPENSES.

Gross Earnings.	1905-06.	1904-05.
Merchandise freight	$1,641,391.83	$1,393,522.53
Iron ore freight	302,732.95	366,009.43
Passenger	951,132.26	853,238.24
Mail	59,698.70	60,391.79
Express	45,763.29	33,138.12
Sleeping and observation cars	32,048.25	27,340.65
Miscellaneous	25,008.12	33,295.26
Total	$3,057,775.40	$2,706,936.02
Operating Expenses.		
Maintenance of way and structures	$ 477,302.50	$ 436,316.15
Maintenance of equipment	265,377.07	227,768.26
Conducting transportation	1,234,837.70	1,107,043.44
General expenses	79,942.49	81,577.44
Total	$2,057,459.76	$1,852,705.09
Net earnings	$1,000,315.64	$ 854,230.93
Percentage of expenses to earnings	67.29	68.44
Gross earnings from operation per mile of road	5,159.20	4,620.84
Operating expenses per mile of road	3,471.39	3,162.64
Net earnings per mile of road	$ 1,687.81	$ 1,458.20
Gross earnings from operation per train mile	$ 1.44863	$ 1.39424
Operating expenses per train mile	.97472	.95426
Net earnings per train mile	$ .47391	$ .43998

The operating expenses include the cost of rebuilding and filling bridges, which for the year ending June 30, 1906, was $2,147.09, and for the year ending June 30, 1905, was $8,551.20.

FREIGHT TRAFFIC.

	1905-06.	1904-05.
No. tons through freight carried, earning revenue	1,305,988	1,154,493
No. tons local freight carried, earning revenue	1,975,518	1,699,043
Total tons freight carried, earning revenue	3,281,506	2,853,536
Total mileage of through freight	144,683,664	120,152,670
Total mileage of local freight	82,488,582	58,772,225
Total freight mileage, or tons carried one mile	227,172,246	178,924,895
Average ton haul for through freight	110.78 miles	104.07 miles
Average ton haul for local freight	41.76 "	34.59 "
Average ton haul for all freight	69.23 "	62.7 "
Average amount received for each ton haul	58.822 cents	58.862 cents
Average receipts per ton per mile for through freight	.791 "	.885 "
Average receipts per ton per mile for local freight	.952 "	1.048 "
Average receipts per ton per mile for all freight	.85 "	.939 "
Total freight earnings	$1,944,124.78	$1,699,531.96
Freight earnings per mile of road	3,280.17	2,901.17
Freight earnings per train mile	1.61	1.62

Following is the percentage of the tonnage of the principal commodities handled: Ores, 43.09; logs, 10.74; lumber, 8.52; other forest produets, 7.03; coke, 6.26; stone, sand and other like artieles, 5.10; merchandise, 4.37; bituminous coal, 2.99; iron, pig and bloom, 1.75; copper, 1.61; flour, 1.37; grain, 0.84.

PASSENGER TRAFFIC.

	1905-06.	1904-05.
No. through passengers carried, earning revenue	148,699	131,522
No. local passengers carried, earning revenue	469,638	422,571
Total number passengers carried, earning revenue	618,337	554,093
No. passengers carried one mile	34,413,938	31,019,854
Average distance carried	55.65 miles	55.98 miles
Average amount received from each passenger	$1.49935	$1.49648
Average receipts per mile for through passengers	2.597 cents	2.603 cents
Average receipts per mile for local passengers	2.807 "	2.755 "
Average receipts per passenger per mile for all passengers	2.694 "	2.673 "
Total passenger earnings	$1,088,642.50	$ 974,108.80
Passenger earnings per mile of road	1,836.78	1,662.84
Passenger earnings per train mile	1.18742	1.06095

BALANCE SHEET, JUNE 30, 1906.

Cost of road and equipment	$ 46,161,075.60
Mackinaw Transportation Co	237,371.70
Lake Superior Terminal & Transfer Ry	28,100.00
Lake Michigan and Lake Superior Ry	7,662.68
S. S. Marie Bridge Co	250.00
Mineral Range Rd. Co	532,295.00
Sainte Marie Union Depot Co	56,798.38
Western Express Co	25,000.00
Minnesota extension	12,067.67
E. W. Allen, treasurer	43,097.29
Sundry account ledger	145,230.52
Rent ledger	909.81
Station ledger	276,709.83
Western Express Co. (current account)	16,979.73
Post Office department	14,704.54
Material	356,804.85
Profit and loss	2,616,756.32
	$ 50,531,813.92
Common capital stock	$12,000,000.00
Preferred capital stock	10,000,000.00
D., S.S. & A. consols, 4% gold bonds	15,107,000.00
D., S.S. & A. 1st mortgage 5% bonds	3,816,000.00
M. H. & O. 6% bonds of 1925	1,077,000.00
Income certificates	3,000,000.00
Car trust notes, 5th series	236,213.19
Car trust notes, 7th series	170,280.00
C.P.R. guaranteed interest advances	3,589,395.18
C.P.R. general account	323,012.58
South Shore Land Co.	197,007.82
M. H. & O. Lands	7,270.70
Bills payable	10,500.00
Vouchers payable	313,795.76
Labor	162,483.24
Coupon ticket ledger	146,843.06
Car service ledger	7,175.83
Accrued interest on bonds	267,938.33
Accrued taxes	99,898.23
	$ 50,531,813.92

During the year $341,309.87 was eharged construction as follows: New buildings, $12,-516.63; ore dock no. 5, Marquette, $265,-315.78; reducing grade at Strongs, $3,403.07; new machinery and tools, $3,007.47; new fenee, $1,791.87; new telegraph line Mason braneh, $54.50; new branches and sidings, $68,697.58, from which there was dedueted $13,545.37 for tracks taken up; right of way, $68.34.

Minneapolis, St. Paul and S.S. Marie Ry.

Following are extracts from the report of this subsidiary company of the C.P.R. for the year ended June 30, presented at the annual meeting in Minneapolis, Minn., Sept. 18:

	1906.	1905.
Gross earnings	$11,574,461.99	$8,716,621.58
Operating expenses	5,784,559.78	4,502,607.33
Net earnings	$5,789,902.21	$4,214,014.25
Income from other sources.	62,965.22	66,335.58
Total net earnings	$ 5,852,867.43	$ 4,280,349.83
Fixed charges, taxes, etc	2,585,181.31	2,216 934.92
Surplus income	$ 3,267,686.12	$ 2,063,414.91

The gross earnings show an inerease of 32.8% over the previous year; the surplus $1,204,271.21, an inercase of 58.4% over the previous year. The operating expenses were 50% of gross earnings. The work of reducing gradients and correcting the alignment Minneapolis to Paynesville, Minn., outlined in last year's report, has been completed and similar improvement extending to the Dakota line is rapidly nearing eompletion. With the exception of one or two short gradients this work will be entirely completed this year and when done will leave a maximum gradient of 0.3% for eastbound traffic into Minneapolis. Since the last report the line from Thief River Falls to Kenmore has been completed and is handling a business beyond expectations; the extension from Underwood to Garrison is also in operation. This year's eonstruction ineludes a line from Flaxton, North Dakota, westerly to Ambrose, about 20 miles east of the Montana line, a distance of 51 miles; a line from Drake, N.D., westerly to Plaza, N.D., a distance of 84 miles, and an extension of the Garrison line north to a connection with the Plaza line at Max, N.D., a distance of 14 miles. These lines will be completed during 1906. The rapid growth of business made it necessary to acquire additional property for enlargement of terminal facilities at both Minneapolis and St. Paul; a large additional freight house at the former place is building and the work of extending the tracks into the property acquired at St. Paul is under way. These terminals in both eities are second to none in location, and will very greatly increase the independent position of the property. The poliey of improving the property to keep pace with its enlarged patronage has been steadfastly kept in mind. The standard has been constantly improved. The Northwest is enjoying an unprecedented period of prosperity and the promise of very satisfactory crops this season seems to presage a eontinuanee of heavy traffie during the eoming year.

The mileage owned and operated is 2,-134.73 miles, including 18.60 miles of spur lines, against 1,789.79 miles exclusive of 20.90 miles of spur lines reported at June 30, 1905. The eompany has trackage faeilities over 18.52 miles of terminal property in Minneapolis, St. Paul and Sault Ste. Marie.

EARNINGS AND EXPENSES.

Freight		$8,468,674.79
Passenger		2,427,538.94
Mail, express and miscellaneous		678,248.26
		$11,574,461.99
Maintenance of way and structures	$1,023,733.70	
Maintenance of equipment	1,090,480.37	
Conducting transportation	3,450,287.89	
General expenses	220,057.82	
		$5,784,559.78
Net earnings from operation		$5,789,902.21
Interest, discount and exchange	$ 57,350.22	
Interest on bonds and stock	5,615.00	
		$ 62,965.22
Total income		$5,852,867.43
Interest on bonds	$1,863,684.45	
Taxes	107,507.76	
Rental of terminals	613,989.10	
		2,585,181.31
Net surplus for year		$3,267,686.12

The expenditures on aceount of construction and equipment were: Preliminary surveys, $6,270.23; Winnipeg line, $181,012.94; Thief River Falls line, $3,100,962.58; Underwood extension, $172,121.91; Egeland line, $71,422.93; Flaxton extension, $114,-767.99; Garrison extension, $234,928.71; A.B. and N.W. Ry., $533.50; terminal property, St. Paul, Minneapolis and other points, $296,308.61; betterments to main line, $186,919.49; new equipment, $1,881,-790.86; total, $6,247,039.75.

The rolling stock owned June 30 was reported to consist of 177 locomotives, 141 passenger cars of all kinds, 11,762 freight cars of all kinds, and 173 miscellaneous cars.

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Telephone Crossings of Railways.

Following is the completion of the standard conditions and specifications for telephone wires crossing railway tracks, the first portion of which was published in our Sept. issue:—

Where open lines are strung across railway tracks the stretch must consist of copper wire, to be of not less than no. 13 new British standard gauge .091 inches diameter. Wire to be tied to the insulator on each of the double cross arms by a soft copper tie wire, of same dimensions as line wire, not less than 20 in. in length. Where a number of rubber covered wires are strung across railway tracks they may be made up into a cable by being twisted on each other or sewn with marline, which must be tied every 3 ft. and the whole securely fastened to the poles by marline. Guy wires crossing railway tracks must consist of either 7 stranded no. 16 or no. 13 galvanized steel wire and must be clearly indicated as guy wires on the plan accompanying the application.

An iron hook guard to be placed on the end of each cross arm, or a copper wire loop guard over each wire and fastened by staples to the cross arm.

Where cables are strung across tracks they must be carried on a suspension wire of not less than 7 strands of no. 13 galvanized steel wire, which when cross arms are used will be attached to a ¾ in. iron hook, or when fastened to poles, a malleable iron messenger hanger bolted through the poles; the cable to be attached to the suspension wire by cable clips not more than 20 in. apart. Rubber insulated cables of less than ¾ in. in diameter may be carried on a suspension wire of not less than 7 strands of no. 16 galvanized steel wire.

UNDER-CROSSINGS—CONDITIONS.

(1) The line or lines, wire or wires, shall be carried across the railway in accordance with the approved plan, and a pipe or pipes, conduit or conduits, and each shall, for the whole width of the right of way adjoining the highway, be laid at the depth called for by, and shall be constructed maintained, renewed and repaired, according to the specifications hereinafter set forth.

(2) All work in connection with the laying, maintaining, renewing or repairing of each pipe or conduit, and the continued supervision of the same shall be performed by, and all cost and expenses thereby incurred be borne and paid by, the Telephone company, but no work shall at any time be done under authority of the order in such a manner as to obstruct, delay or in any way interfere with the operation or safety of the trains or traffic on the said railway.

(3) The Telephone company shall, at all times, maintain each pipe or conduit in good order and condition, and so that at no time shall any damage be caused to the property of the railway company, or any of its tracks be obstructed, or the usefulness or safety of the same for railway purposes be impaired, or the full use or enjoyment thereof by the said railway company be in any way interfered with.

(4) Before any work of laying, renewing or repairing any pipe or conduit is begun, the Telephone company shall give to the railway company at least 48 hours prior notice thereof, in writing, accompanied by a plan and profile of the part of the railway to be affected showing the proposed location of such pipe or conduit and works contemplated in connection therewith, and the said railway company shall be entitled to appoint an Inspector to see that the Telephone company, in performing said work, complies, in all respects, with the terms and conditions of the order authorizing the work, and whose wages, at a rate not exceeding $3 00 per day, shall be paid by the Telephone company.

(5) The Telephone company shall, at all times, wholly indemnify the company owning, operating or using the said railway of, from and against all loss, costs, damage and expense to which the said railway company may be put by reason of any damage or injury to person or property caused by any pipe or conduit, or any works or appliances herein, or in the order authorizing the work, provided for not being laid and constructed in all respects in compliance with the terms and provisions of the order authorizing the work, or if, when so constructed and laid, not being at all times maintained and kept in good order and condition and in accordance with the terms and provisions of said order, or any order, or orders of the Board in relation thereto, as well as any damage or injury resulting from the imprudence, neglect or want of skill of any of the employes or agents the Telephone company.

(6) Nothing in this order shall prejudice or detract from the right of any company owning or operating or using the said railway to adopt, at any time, the use of electric or other motive power and to place and maintain upon or under the said right of way such poles, wires, pipes and other fixtures and appliances as may be necessary or proper for such purposes. Liability for the cost of any removal, change in location, or construction of the pipes, conduits, wires or cables constructed or laid by the Telephone company under authority of an order of the Board, rendered necessary by any of the matters referred to in this paragraph, shall be fixed by the Board on the application of any party interested.

(7) Any dispute arising between the Telephone company and any company owning, using or operating said railway as to the manner in which any pipe or conduit, or any works or appliances hereinbefore provided for, are being laid, maintained, renewed or repaired, shall be referred to the Chief Engineer of the Board, whose decision shall be final and binding.

SPECIFICATIONS.

Vitrified clay, cement pipe, creosoted wood, iron pipe, or fibre may be used.

The excavation must be of sufficient depth to allow the top duct to be at least 3 ft. below the bottom of the ties of the railway tracks.

The duct to be laid on a base of 3 in. of concrete mixed in proportion, one of Portland cement, three of sand, and five of broken stone or gravel. Where stone is used such stone not to be of greater size than will permit of its passage through a 1 in. ring. After ducts are laid, the whole to be encased to a thickness of 3 in. on top and sides in concrete mixed in the same proportion as above.

The excavation must be well filled in slowly and well tamped on top and sides.

The excavation must be at all times safely protected.

Switching Charges at Buffalo.—There has been a general increase in the switching charges assessed by all of the railways doing business at Buffalo, N.Y., the new arrangement as a rule being that where the average switching for years past has been on the basis of $3.50 a car, it will hereafter be on the basis of $5 a car. There are a number of instances where the charges for switching were less than $3.50 a car, and some instances where the charges were more than $3.50 a car. These exceptions have been increased proportionately with the average charge, which, since Sept. 1, is $5 a car. The lines having the most extensive facilities are the New York Central Rd., the Erie Rd., and the Delaware, Lackawanna and Western Rd., each of which has a belt line practically round the city.

October Birthdays.

Many happy returns of the day to

E. P. Allen, Travelling Passenger Agent C.P.R., Syracuse, N.Y., born Oct. 21, 1839.

R. A. Burford, city passenger and ticket agent C.P.R., Buffalo, N.Y., born at Brooklyn, N.Y., Oct. 4, 1878.

G. E. Burns, Freight Claim Agent C.P.R. lines east of Port Arthur, Ont., born at St. Thomas, Ont., Oct. 6, 1863.

T. C. Burgess, Commercial Agent G.T.R., at Minneapolis, Minn., born at New York City, Oct. 2, 1853.

C. E. Cartwright, Division Engineer, C.P.R., Vancouver, B.C., born at Toronto, Ont., Oct. 13, 1864.

James Conmee, M.P., railway contractor, etc., Port Arthur, Ont., born at Sydenham, Ont., Oct. 3, 1848.

G. L. Courtney, General Agent C.P.R., Victoria, B.C., born at Chatham, Ont., Oct. 7, 1868.

F. S. Darling, Division Engineer of Construction C.P.R., Toronto, born at Burlville, R.I., Oct. 8, 1863.

J. Earls, ex-Secretary and Treasurer Canadian Freight Association at Toronto, Ont., born in Ireland, Oct. 30, 1838.

A. H. Harris, C.P.R. freight department at Montreal, Que., born in Devonshire, Eng., Oct. 15, 1855.

W. P. Fitzsimons, Manager Lackawanna-Grand Trunk Line at Buffalo, N.Y., born at Detroit, Mich., Oct. 27, 1868.

B. W. Greer, General Freight Agent C.P.R. at Vancouver, B.C., born at Aldboro, Ont., Oct. 4, 1867.

J. W. N. Johnstone, General Passenger Agent, Reid Newfoundland Co., St. John's, Nfld., born at Campobello, N.B., Oct. 4, 1878

W. M. Kirkpatrick, Acting Export Agent C.P.R., Montreal, born at Kingston, Ont., Oct. 8, 1874.

Jas. W. Leonard, Assistant General Manager C.P.R., Eastern Lines, Toronto, born at Epsom, Ont., Oct., 1858.

W. T. Marlow, Import Freight Agent C.P.R., at Montreal, born at Limerick, Ireland, Oct. 25, 1872.

R. Marpole, General Superintendent C.P.R. Pacific Division at Vancouver, born in Montgomeryshire, Wales, Oct. 9, 1850.

G. Olds, ex-General Traffic Manager C.P.R., born at Stapleton, Gloucestershire, Eng., Oct. 29, 1832.

H. Paton, President Shedden Forwarding Co., director Bell Telephone Co., Montreal, born at Johnstown, Renfrew, Scotland, Oct. 5, 1852.

D. Pottinger, General Manager Canadian Government Rys. at Moncton, N.B., born at Pictou, N.S., Oct. 7, 1843.

N. L. Rand, Master Mechanic I.C.R., Moncton, N.B., born at Shediac, N.B., Oct. 28, 1843.

G. B. Reeve, ex-Second Vice-President and General Manager G.T.R., La Mirada, Cal., born in Surrey, Eng., Oct. 23, 1840.

W. S. Rollo, joint agent G.T.R. and Central Vermont Ry., St. John's, Que., born at Dundee, Scotland, Oct. 8, 1852.

Sir Thomas G. Shaughnessy, President C.P.R. at Montreal, born at Milwaukee, Wis., Oct. 6, 1853.

C. W. Spencer, General Manager Mackenzie, Mann & Co.'s Railway Lines east of Port Arthur, Montreal, born at Kemptville, Ont., Oct. 31, 1857.

W. S. Taylor, Treasurer C.P.R. at Montreal, born at Dornoch, Sutherlandshire, Scotland, Oct. 18, 1839.

L. H. Wheaton, Chief Engineer Halifax and Southwestern Ry., Bridgewater, N.S., born at Sackville, N.B., Oct. 5, 1866.

E. A. Williams, ex-Superintendent Rolling Stock C.P.R., now Assistant General Manager Erie Rd., at New York, born at Wiscasset, Me., Oct. 4, 1848.

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Complaints About Freight Matters.

Following are extracts from the report of J. R. Marlowe, Manager of the Canadian Manufacturers' Association Transportation Department, presented at the August meeting:

"The complaint of the Kerr Engine Co., Walkerville; the Standard Paint and Varnish Works, Windsor; the Walkerville Brewing Co., Walkerville, and the Wm. Gray & Sons Co., Chatham, of discrimination in freight rates from Windsor and Chatham to eastern Canadian points in favor of U.S. points, has resulted in the issue of a memorandum by the Railway Commission to the Canadian Freight Association, directing that the discrimination be done away with. The railways are given 90 days in which to submit a scheme for the consideration of the Board which will do away with the discriminations complained of. In this connection the department has learned that the Canadian railways have been negotiating with U.S. railways for the purpose of increasing rates from the U.S. into Canada. No definite particulars are obtainable, and the railway officials approached have been non-communicative. However, in the interests of the association a protest has been filed with the Railway Commission against the acceptance of any seheme which will involve increases in freight rates. The board has been informed that the day for increasing freight rates to or within the older provinces of Ontario has gone by, and reductions are looked for as a result of the complaints which the board has been investigating.

"Negotiations on behalf of the packers with regard to minimum weights for live hogs are progressing favorably, and it is expected that satisfactory reductions in the minimum weights will be arranged in the very near future.

"The application to the Canadian Freight Association respecting iron castor pins has resulted in these articles being included in the iron commodity list, and the question of classification will be dealt with later by the Canadian Classification Committee.

"The Railway Commission has issued an interim report of its Chief Traffic Official in the matter of complaint respecting staking of flat and gondola cars. In conneetion with this report the Seeretary of the Commission states that the board has decided to take no further action pending the enquiry in the U.S. by a joint committee representing the lumber shippers and the interested railways.

"The complaint of the Canadian Aluminum Works of unsatisfaetory service at Chambly Canton, Que., has been adjusted by negotiation with the Traffie Manager of the Central Vermont, Montreal. A new system of marshalling the freight trains has been adopted so as to ensure despatch to all less than carload traffie."

Capt. G. C. Coles of Collingwood, Ont., has been appointed examiner of masters and mates at that port.

J. W. Leonard, Assistant General Manager C. and M. Eastern Lines, and Mrs. Leonard celebrated their silver wedding in Toronto, Sept. 22.

The Dominion Ex. Co. has opened offiees at Killam, Sedgewiek, Alta.; Authurette, Norton, Stiekney, N.B.; Elmira, Weissenberg; Ont.; Chelsea, Eastman Jet., Eastman village, Rosemere, Que.

The Dominion Ex. Co. has withdrawn from all lines in the United States, closing offiees at Detroit, Mieh., and Sault Ste. Marie, Mieh., Noyes (Emerson), Minn., Portal, N.D., and all offices in the states of Maine, Vermont and Washington, and is sueceeded by the Western Ex. Co.

C.P.R. Betterments, Construction, Etc.

Mile End Yard, Montreal.—The C.P.R. has nearly completed the laying out of a new team delivery yard at Mile End, Montreal. The yard, which is bounded on the east by Sanguinet St., will extend to St. Louis St., and will have aceommodation for 300 cars. It is being laid out on the diagonal instead of the long traek system. There are to be 27 traeks for unloading cars, and each track will accommodate from seven to 11 cars. It is expected to have the yard completed early in Oct.

St. Annes-Vaudreuil Second Track.—The work of double-tracking between these stations covers from mileage 15.60 to 18.95 west of Montreal, a distance of four miles. The steel on the existing and new tracks is 100 lbs. with Bonzano joints. The only change of alignment is at the east end of St. Annes bridge, where the present track is to be converted to north track, while south track will be brought up between G.T.R. and C.P.R. tracks and run over bridge on present centre line. Total length of rearrangement of alignment about 1,500 feet, the same being easily accomplished on aecount of the fact that the track approaches the bridge on a curve. Gradients are being revised over the entire section, reducing them from 0.8% ruling to 0.4% ruling. This work is being accomplished by means of lifting the track in sags, the greatest lift being 15 ft. The material for lifting is hauled 20 miles over main line, the equipment being as follows: two locomotives, one steam shovel, one unloader, one spreader and 54 convertible ballast cars of 20 cu. yds. capacity. The average amount of material unloaded per day is 2,000 yds., which is handled by a track lifting and spreading gang of 90 men. In connection with the raising of the track and rearrangement of alignment at the east end of St. Annes bridge, it was necessary to put in a reinforced concrete retaining wall on the north side of track, beginning with a height of 22 ft. at east abutment and tapering to a height of 6 ft., 400 ft. from same. The reason for putting in this wall was to avoid property damage. To allow of excavation for this retaining wall the present bank had to be piled for a distance of 100 ft. from the east abutment. The bridge revisions, by far the heaviest portion of the work, are as follows:

Ste. Annes Bridge: Present bridge consists of 8-60 ft. D.P.G.'s, 2-100 ft. D.P.G.'s, 1-325 ft. T. Truss, 3-100 ft. T.L.G.'s on masonry piers and abutments, total length between ballast walls being 1,370 ft., average depth base of rail to low water 40 ft., greatest depth of low water to bottom of river 11 ft. In the new work the 8-60 ft. and 2-100 ft. D.P.G.'s will be replaced in duplicate, the 325 ft. T.T. will be replaced by duplieate spans 2-105 ft. and 1-115 ft. D.P.G.'s, the 3-100 ft. T.L.G.'s will be replaced by 3-100 ft. T.T.'s for double track. Two new piers will be built to carry the spans replacing 325 ft. span, and remaining piers and abutments will be widened sufficiently to carry double track and duplicate spans. The present upstream toe of piers has batter great enough to carry foundations of extensions by cutting out sufficient masonry on this toe to bring the level of same down to elevation of low water. A eonsiderable quantity of shale rock has to be exeavated for foundations of new piers, the same being about 8 ft. below low water level.

Stoekers Creek Bridge: Present bridge eonsists of 2-100 ft. D.P.G.'s on masonry piers and abutments, depth base rail to low water 27 ft., low water to bottom of creek 3 ft. In new work one span is to be filled in, changing eentre pier to east abutment, widening same and west abutment to carry duplicate 100 ft. D.P.G.'s. Grade being raised 3 ft. over this bridge it is necessary to raise bridge seats accordingly.

Vaudreuil Bridge: Present bridge consists of 2-60 ft. D.P.G.'s, 7-70 ft. D.P.G.'s, 8-100 ft. D.P.G.'s on masonry piers and abutments, total length between ballast walls 1,435 ft., average depth base rail to low water 23 ft., greatest depth low water to bottom of river 14 ft. In new work present spans will be replaced in duplicate by similar spans, piers and abutments being widened to carry same in a similar manner to that on bridge at St. Annes.

New substructure in the three bridges to consist of masonry with backing of 1-3-5 concrete. Material for the piers in the cases of St. Annes and Vaudreuil bridges is being handled by means of cableways from either shore to centre of bridge. On St. Annes bridge the grade is raised an average of 6 ins. throughout, and lowered about the same amount on bridge at Vaudreuil, making it necessary to revise bridge seats to accommodate same.

Montreal-Toronto Line.—The President, Sir Thos. G. Shaughnessy, stated Sept. 5 that the eompany had engineering parties in the field working on a proposed line from near Tweed to near Pickering, Ont. The report of the engineers would determine the future action of the company. A. G. Ardagh, of the eompany's engineering staff, was in Belleville, Ont., Sept. 7, and is reported to have stated that he had been instructed to make a survey from near Vaudreuil, Que., to Belleville, where he would connect with a party under H. Wellwood, now working east towards Belleville. In an interview Sept. 11, J. W. Leonard, Assistant General Manager Eastern Lines, said: "The new road from Montreal to Toronto will leave the present line near Kemptville Junction, run to Brockville, and from there follow the St. Lawrence River and north shore of Lake Ontario to Toronto. It will pass through all the towns on the route instead of running along the water about a mile or a mile and a half from the towns. The 0.3% gradient will be the maximum, and we hope to have a good fast service. It will be six or eight months before the surveys are completed and tenders can be called for."

The engineers making the survey, a Montreal paper states, have instructions to get as elose to the towns as possible. Among the towns through which the proposed line will run are Cobourg, Port Hope, Bowmanville, Oshawa, Whitby, Brighton, Colborne, Grafton, Newtonville and Newcastle.

The Dominion Parliament in 1904 passed an act incorporating a eompany with the title of the Campbellford, Lake Ontario and Western Ry., to construct a railway from the C.P.R. between Blairton and Ivanhoe stations, passing through Campbellford, Warkworth, Cobourg, Port Hope, Newcastle, Bowmanville, Oshawa and Whitby, to a junction with the C.P.R. between Locust Hill and Leaside Junction. It was stated at the time that the local people who were interested in the proposal had an assurance that the C.P.R. would eonstruct and operate the line. (July, 1904, pg. 231.)

Georgian Bay and Seaboard Ry.—The location plans for the new C.P.R. line from Victoria Harbor to Peterborough, Ont., are in eourse of preparation, and those for a considerable mileage at the Vietoria Harbor end have been approved by the Board of Railway Commissioners. The line will be about 96 miles long, and will give the C.P.R. a shorter grain route from the Georgian Bay by over 81 miles than its present one via Owen Sound. (Aug., pg. 467.)

Toronto-Sudbury Line.—L. O. Armstrong, of the C.P.R. colonist and tourist depart-

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ment, returned to Montreal from Muskoka, Sept. 4. He said the new Toronto-Sudbury line had been completed to Bala, and it was expected to have a train service in operation early in Oct. J. W. Leonard, Assistant General Manager Eastern Lines, says: It is expected to get the line into Parry Sound during the fall. He also expects that the whole line to Sudbury will be completed and opened for traffic by July, 1907. Construction is in progress between Romford, just east of Sudbury, and the French River. At this point the two construction parties will meet, and the two pieces of line will be connected by a bridge of considerable magnitude. It will be a combination of a swing and a cantilever bridge, this construction being adopted so as to enable it to be utilized for the passage of vessels in the event of the Georgian Bay-Ottawa canal ever being constructed. The bridge will be about 1,500 ft. in length, and the foundations will be laid in 100 ft. of water.

All the stations on this line are to be equipped with Acton Burrows, Limited, enamelled iron station name signs, lettered in bright yellow on dark blue ground, which have been adopted as the company's standard for all lines.

Guelph Junction Ry.—The C.P.R., which operates this line under lease, has been doing a considerable amount of reballasting on it, and proposes to relay it with 80 lb. steel, so as to bring it up to the standard of the Guelph and Goderich Ry., now under construction.

Guelph and Goderich Ry.—Grading has been completed between Guelph and Blyth, Ont., and the balance of the work is well forward. The contractors are making good progress with the bridge over the Maitland River, Goderich. The tracklaying and ballasting is being gone on with, and it is expected that the whole will be completed by the end of Nov. (Sept., pg. 547.)

Walkerton and Lucknow Ry.—Grading is reported to be well forward between Durham and Proton, and several gangs of men are at work between Hanover and Walkerton, Ont., on this line. The contractors are Macdonald and Stephen.

Replying to a deputation from Southampton, Sept. 6, J. W. Leonard, Assistant Gereral Manager Eastern Lines, said surveyors would be sent over the route with a view of constructing a line to Southampton. (Aug., pg. 471.)

Saskatoon Terminals.—The C.P.R. has purchased a considerable area of land in Saskatoon, Sask., for use as terminals. With the passing of the Qu'Appelle, Long Lake and Saskatchewan Ry. to the Canadian Northern Ry., the C.P.R. connection with Saskatoon will be by the Pheasant Hills branch, which will connect there with the line now under construction from Saskatoon to join the line under construction easterly from Wetaskiwin. We are advised that while the land has been purchased for terminal purposes, it has not been decided how it is to be laid out.

A local report states that the land acquired consists of 186 lots for right of way and freight shed, and a block and a half for a passenger station. This will be located on Avenue A, directly opposite 23rd Street. The line from the east will cross the Saskatchewan River on a new bridge of concrete and steel at the Government road allowance known as 23rd Street; along the northern boundary of sections 33 and 34, continuing west until crossing the Q., L.L. and S. Ry., where it turns to the south-west across the triangle lying between Avenue A and that railway, straight to the station grounds at Avenue A and 23rd Street. The passenger station will be on the west of the tracks and the freight sheds on the east side some distance to the north. The main yards, the shops, roundhouse and general freight terminals will be on the east side of the river where the company holds nearly two sections of land.

Saskatoon Westerly.—Track has been laid westerly from Saskatoon to Asquith, about 40 miles, and ballasting is being gone on with. Grading is being gone on with further west, but it is not expected that there will be any further tracklaying done this season. (Aug., pg. 471.)

Medicine Hat Improvements.—A contract has been let to McDiarmid Bros., Winnipeg, for the addition of six stalls to the roundhouse at this point.

Moose Jaw Northwesterly.—The extension from Moose Jaw to Tuxford, Sask., 14.5 miles, has been practically completed, and a contract has been let to P. R. Lamb, Winnipeg, Man., for an extension from mileage 14 to mileage 50. We were advised Sept. 11 that some miles of the grading on the extension had been done, and that it was expected to get the greater part of the grading completed this year. The line to Tuxford runs almost due north, and the extention runs northwesterly, passing through Bancroft, Brandt, and Malnio. The branch will ultimately connect with the Lacombe branch now under construction easterly. (Sept., pg. 547.)

Nicola, Kamloops and Similkameen Ry.—It is hoped to get the line to Nicola Lake, B.C., completed by Nov. 1. This is a distance of about 50 miles from Spence's Bridge. A contract is reported let for a further distance of eight miles, which will bring the line to Quilchena. This eight miles consists mainly of rock work, and will be gone on with during the winter. Survey parties are out locating a line from Quilchena to Aspen Grove, a distance of about six miles, and it is expected that this will be put under contract in the spring. (Aug., pg. 471.)

Warehouses at Victoria.—A contract is reported let to W. Hepburn of Vancouver, B.C., for the erection of a warehouse 150 ft. long by 60 ft. wide, on the land facing Belleville St. wharf, Victoria.

M.C.R. Detroit River Tunnel

The contract for the Michigan Central Rd. tunnel under the Detroit River between Windsor, Ont., and Detroit, Mich., has been awarded to Butler Brothers-Hoff Co., New York, the work which has already been commenced, to be completed by June 1, 1909. An illustrated general description of the tunnel project and the three plans offered by the advisory board of engineers (consisting of W. J. Wilgus, H. A. Carson and W. S. Kinnear), as a basis for bidding, was given in THE RAILWAY AND MARINE WORLD for April.

As the tunnel will be built according to a modification of the design suggested by Mr. Wilgus, vice-president of the New York Central Rd., and head of the advisory board, which design involves a new departure in subaqueous tunnelling methods, further details of the final, modified plan are here presented:

"As previously shown, the design of Mr. Wilgus is a trench method. In accordance with the plan, before sections of steel tunnel tubes are floated into place, and immediately after the dredging for the section has been completed, piles are to be driven in the bottom of the dredged channel and cut off at the proper height (or an inch or so below to permit shimming). These piles are to be capped with steel beams to receive the tubes. When the piles are driven, the bottom of the channel to the level of the top of the beams is to be filled with a layer of material of suitable consistency and bearing power, for 12 to 18 ins. in thickness, or as much more as may be necessary to fill in holes or depressions left in the bottom of the trench by the dredging operations. This layer will form a blanket between the bottom of the trench and the concrete to be deposited around the steel tubes. For this layer sand and gravel will be used with the addition of cement where necessary.

"In the trench and upon the steel beams and bed of gravel and concrete will be sunk tubes of plate steel ⅜ ins. thick and weighing an average of 15.3 lbs. per square foot. The steel tubes will be built in lengths of 263 ft. or in such lengths as are found most convenient to handle. The plates will be lap-jointed with a double row of ¾ in. diameter rivets, the outside edges being bevelled and caulked so as to be absolutely watertight. The steel tubes are to be reinforced on the outside about every 12 ft. by diaphragms which will serve the purpose of a cradle in sinking the tubes to their permanent position. On the inside, midway between the diaphragms, the tubes are to be reinforced with a stiffened angle to which will be attached temporarily radial rods of 1 in. diameter, though these rods may be dispensed with if it shall be found that they are not needed. The ends of the tubes are to be reinforced with similar radial rods to prevent deformation during handling. The steel in the tubes is to be of the grade of "railway bridge steel," with an ultimate tensile strength of 55,000 to 65,000 lbs. per square inch.

"The tubes will be sunk separately or in pairs from scows anchored for the purpose or from temporary platforms supported on piling. The greatest care will be exercised to see that they are not overstrained in the handling so as to cause leaks in the joints. When in position to be sunk the tubes will be lowered in a slow and careful manner, so as always to be in complete control. The piles in the trench will always be in such positions that one of the diaphragms of the tube will rest upon the beam when the tubes are in place. Each tube or pair of tubes is to be provided with a detachable upright at each end firmly braced to the tube and of sufficient length to indicate the position of the tube when sinking. These uprights will also serve the purpose after the tube is sunk to adjust its position laterally, so as to bring the sections into alignment. The uprights will, therefore, extend 10 ft. above the water after the tube is in position. When the tubes are concreted in, these uprights will be removed and used again. When the tubes are adjusted laterally to their correct position divers will examine all bearings of the tubes on the beams in the bottom of the trench and will insert shim plates of proper thickness to produce exact bearings.

"Each tube when manufactured will be fitted with a sleeve at one end which can slip over the end of the adjoining tube previously sunk. The sleeve is to be provided with a flange which can be bolted to a corresponding flange of the adjoining tube, a rubber gasket being placed between the two. A similar rubber gasket is to be provided at the inner end of the sleeve bearing up against the edge of the next tube. In bolting up the flanges, which must be done by divers, the rubber gaskets must be squeezed together between the ends of the tubes to form a tight joint. A space 3 by 18 ins. is thus formed all around the tube at the joint. This space will be filled with a grout of pure cement. To this end each sleeve will be provided on top with two small pipes (flexible pipes and joints) leading to the scow floating above. With a force pump each joint will be tested to ascertain whether it is tight by closing one pipe and forcing water through the other. When the joint has been made reasonably tight, pure cement grout will be pumped into it through one pipe until it comes out through the other as evidence that it is completely filled.

RAILWAY SUPPLIES

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CROWBARS, CLAWBARS, TAMPING BARS, PICKS, SHOVELS, BARROWS, TRACK WRENCHES, LEVELS, GAUGES, MAULS, HOOKS, RAIL-BENDERS, ETC.

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HAND CARS, PUSH CARS VELOCIPEDES

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TRACK BOLTS, RAILWAY SPIKES, NUT LOCKS

F. H. Hopkins & Co.

Successors late Jas. Cooper

Imperial Bank Chambers, MONTREAL

"In order to assist in making an exact connection between the tubes each tube will be provided with two pilot pins with taper points that fit into bell-shaped sockets fastened to the adjoining tube. When the tubes are sunk and pulled into place these pilot pins will guide the tube to its exact position for connecting up. Before each tube or set of tubes is launched the corresponding end of the next tube will be fabricated and all flanges, rubber gaskets, bolts and pilot pins, with sockets, fitted together, so that when connected up they will fit accurately.

"The ends of the tubes at the joints are further to be fitted with flange angles on the inside for the purpose of caulking between them should the joints be found to leak. These flange angles are then to be connected with bolts drawn up tight and a suitable caulking material forced in between such angles to make the joint tight. These angles will not be connected where the joints are found tight and acceptable.

"A wooden form is to be bolted to the outer flanges of the diaphragms of each pair of tubes in order to confine the concrete deposits around the latter. This form is to consist of rough planks of yellow pine, white pine, spruce or other timber, 3 in. in thickness and 8 to 12 ins. in width, securely bolted to the flanges of the diaphragm with ⅝-in. bolts. The form is to be finished on top with a string piece. In the preparation of the concrete for the tunnel filling it is provided that gravel may be used in place of crushed stone.

"In order to enable the contractors to begin lining the tubes before the sections are sunk all the way across the river, some of the tubes may be provided with bulkheads to keep out the water when the tubes laid are being pumped out. Such bulkheads will necessarily be of ample strength to take the full hydrostatic pressure coming upon them.

"A common sump for two tubes or a separate sump for each tube will be constructed complete with sump chamber and work incidental thereto."—Railway Age

National Transcontinental Railway

The survey parties which have been working between Quebec and Moncton, N.B., have practically completed their work, and their reports were expected to be in the hands of the Commissioners Sept. 30. It is stated that the Commissioners expect to be in a position to ask for tenders for the grading of this portion of the line during Oct.

Construction work upon the section from Quebec to La Tuque, about 150 miles, is reported to be progressing satisfactorily. For the first 70 miles from Quebec the line passes through a more or less settled country, but beyond that the route is through the forest. In addition to the Cap Rouge viaduct there will be a number of steel bridges on this section. For the superstructure of these the Commissioners have just let contracts. The Dominion Bridge Co., Montreal, will supply the steel for the bridges at Batiscan, Jacques Cartier, Riviere Charest and the crossing of the C.P.R. in Portneuf county, and the Locomotive and Machine Co. of Montreal will supply that for the bridges at Riviere Noir, Riviere aux Pommes, Ste. Annes and Portneuf.

The Commissioners are preparing to invite tenders for the grading and other work upon about 200 miles running east and west from Lake Abitibi. It is expected to get tenders let sufficiently early to permit of much of the material to be brought in during the winter from the end of steel on the Temiskaming and Northern Ontario Ry. This line is at present under construction to a point about 40 miles south of Lake Abitibi; but it is said that the Ontario Government intends to push forward its construction to the lake as early as possible.

The other portion of the line under contract is from Winnipeg, Man., easterly to Lake Superior Junction, where it connects with the line under construction for the Grand Trunk Pacific Ry., known as the Lake Superior branch.

GRAND TRUNK PACIFIC RY.

C. M. Hays, President, and F. M. Morse, Vice-President, G.T. Pacific Ry., left Montreal, at the end of Aug. on a trip of inspection. After looking over the work in progress on the Lake Superior branch in the vicinity of Fort William they went to Winnipeg, reaching there Sept. 2, where it was stated by the Vice-President that there was no foundation for the report that the company was arranging to secure a right of way over the Canadian Northern Ry. between Winnipeg and Portage la Prairie. On reaching Portage la Prairie, the President and Vice-President drove over the right of way to Edmonton, Alta., which was reached Sept. 20. The progress of the work at different points was examined, and the suggestions for branch lines at several places were looked into. Speaking of the trip it was stated that 50% of the grading between Portage la Prairie and Saskatoon was completed, and 30% was done between Saskatoon and Edmonton. There is considerable scarcity of labor, but notwithstanding, it is expected that all the heavy work will be completed this fall, leaving practically nothing to do next year except to lay the steel and do the ballasting. From Edmonton they proseeded over the surveyed routes into the Rocky Mountains with a view of coming to some decision as to the route to be adopted. It is expected they will proceed to Vancouver, B.C., and thence to Prince Rupert, the Pacific Coast terminal, by steamer. H. Phillips, Secretary, and B. B. Kelliher, Chief Engineer, were also of the party, which is expected to return to Montreal about Oct. 20.

Reports from Winnipeg state that it has been decided to erect shops for the G.T. Pacific Ry. about five miles east of the city; that a site has been selected; that Guibalt & Co. will be given the contract, and that work will be started immediately.

At Portage la Prairie, the company has paid duty on an importation of 54,500 tons of steel rails from the United States for the line westerly from that point. Tracklaying is being gone on with on the line from Portage la Prairie to the Touchwood Hills, the grading contract for which is being carried out by McDonald, McMillen & Co. On the next section of 140 miles to near Saskatoon, for which the Canadian White Co. has the contract, it is expected to have the grading completed by the end of the year. The route from Saskatoon to Edmonton, 210 miles, is well covered with men by the contractors, Foley Bros. & Larson.

Survey parties are in the field going over routes for branch lines from Yorkton. One of these branches is intended to connect with Regina; and another to Hudson Bay. The company has secured about 800 acres of land near Saskatoon, which is described on the register as the G.T.P. townsite. When F. M. Morse, Vice-President, was at Saskatoon, Sept. 17, he stated that it was proposed to locate a spur line into the town. The company has also survey parties in the field locating a line into Calgary, Alta. The Edmonton, Alta., City Council has ratified a by-law granting the company a bonus of $100,000 and a right of way into the city, on condition that it establishes divisional terminals there.

Reports from the Pacific coast state that large contracts for ties and other timber have been placed and that the saw mills at Port Simpson and Essington, B.C., have large railway orders on hand. J. H. Bacon, the company's harbor engineer, has returned to Vancouver from Prince Rupert where he has been inspecting the harbor accommodation, and preparing plans for wharves, etc. C. B. Dodge, a Dominion Government engineer, is at Prince Rupert making charts of the harbor, which is reported to be commodious, and to have safe approaches. Considerable work is in progress on the shore, and E. G. Russell, who has returned to Vancouver from Prince Rupert, says that the company is taking every precaution to have a model city laid out. (Sept., pg. 545).

Brockville, Westport and Northwestern Railway

Following are extracts from the report for the year ended June 30:

ASSETS

Purchase cost of railway, including franchise, real and personal estate, rolling stock, etc., as taken over by the present company, Nov. 23, 1903, at the cost of		$1,350,000.00
Balance of improvements to June 30, 1905	$25,894.39	
Outlays for improvements since June 30, 1905	14,115.69	
Total improvements	$40 010.08	
Less allowances for depreciation, etc., charged off as estimated for 1906	4,000.00	
		36,010.08
Outlays on extension of railway beyond Westport some 80 miles. Paid on account of surveys, etc		4,465.70
Unused materials on hand, supplies, fuel		4,025.75
Outstanding accounts due		684.06
Cash on hand		6,127.08
		$1,401,312.67

LIABILITIES

Capital stock, 10,000 shares common	$1,000,000.00	
Capital stock, 10,000 shares preferred	1,000,000.00	
Total	$2,000,000.00	
Less treasury stock unissued, (half common and half preferred)	1,100,000.00	
Balance, full-paid-up stock issued		$ 900,000.00
First mortgage bonds, authorized issue of 450 bonds $1,000 each 4% interest.		450,000.00
Bills payable		15,200.00
Accrued interest on bonds		1,500.00
Outstanding accounts due		934.22
Gross liabilities, June 30, 1906		$1,367,634.22
Surplus, by settlement in full of claims of Syndicate		23,537.06
Surplus 1905 brought forward		5,102.99
Surplus 1906 (P. & L. Acc.)		5,038.40
		$1,401,312.67

Proportion of earnings to operating expenses	0.994 per cent.
Earnings per train mile	$1.016
Operating expenses per train mile	$0.509
Average cost of track maintenance	$51.73 per mile
Average improvements on roadway	$135.94 per mile
Miles run by passenger trains	30,010
Miles run by freight trains	180
Miles run by mixed trains	28,170
Total miles run by trains	58,360

DESCRIPTION OF FREIGHT CARRIED IN

	Tons Wt. 1906	Tons Wt. 1905
Flour in barrels	2,027	2,320
Grain (bushels)	2,975	2,365
Live stock, number head.	2,173	1,940
Lumber, all kinds	1,109	1,083
Coal and other fuel	1,183	1,130
Manufactured goods	8,520	7,298
All other articles	3,325	4,131
Total tons weight	21,312	20,267

Total passengers carried..1906, 69,110; 1905, 62,477

COMPARISON OF EARNINGS AND EXPENSES

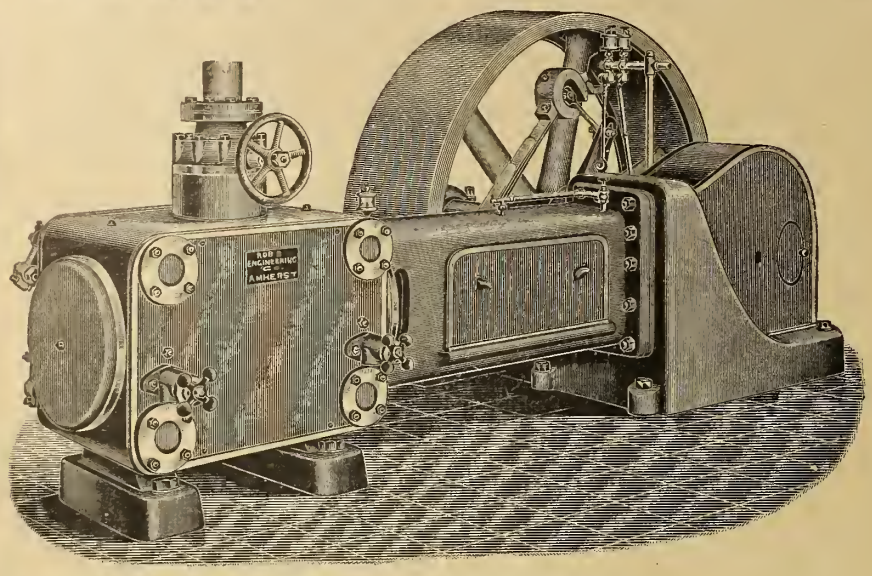
Year	Earnings	Operating Expenses	Excess of Earnings
1902	$39,232.28	$33,116.47	$ 6,115.81
1903	44,461.74	32,733.14	11,728.60
1904	48,431.25	30,792.66	17,638.59
1905	54,045.76	30,145.74	-23,900.02
1906	59,318.99	29,748.85	29,570.14

The length of the main line, Brockville to Westport, is 45 miles, laid with 56 lb. steel.

The rolling stock consists of 4 locomotives, 5 passenger cars, 4 emigrant cars, 2 baggage, mail and express cars, 10 box cars, 8 platform cars, 2 coal cars, with air-brakes and auto-couplings, 1 snow plow.

The present complete line before its foreclosure sale in Jan., 1903, was capitalized for $1,125,000, and bonded for $1,125,000.

Our Corliss Engines



Are fitted with Robb-Armstrong Corliss valve gear which has the following good points:—

POSITIVELY DRIVEN
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RUNS NOISELESSLY
MINIMUM FRICTION
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Bell Telephone Building, Montreal; Watson Jack, Manager.
355 Carlton Street, Winnipeg; J. F. Porter, Manager.

THE CYCLOPEAN IRON WORKS CO.

MANUFACTURERS OF

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DUMPING BUCKETS

and Scale Boxes.

CONTRACTORS' SUPPLIES

SEND FOR OUR NEW CATALOGUE TO-DAY

402-404 Claremont Ave., JERSEY CITY

N.J., U.S.A.

It is now capitalized for $2,000,000, with a treasury reserve stock of $1,100,000, and a full paid-up capital of $900,000. Its bonded indebtedness is $450,000, or at the rate of $10,000 a mile (authorized by its charter) for the 45 miles of completed road. This line could not be reproduced to-day with all its accumulated advantages and active operation for the last ten years' regular service, for anything like its original cost.

The material increase of the earnings will depend principally upon the early construction of the extension of the railway beyond its present terminal at Westport, and from which will be derived a large freight traffic of heavy timber and mineral products from the intermediate districts en route, as well as of grain and live stock shipments from the overflow of this class of traffic from the great north-western districts over the main trunk railway lines, with which this extension will connect when completed. A prominent engineer who surveyed the line of extension some years ago and the physical conditions en route, summed up the same by stating: "That the enormous income to be derived from the heavy mineral traffic in iron, zinc, lead, barium, sulphate, gypsum, arsenical and iron pyrites, as well as other valuable and extensive mineral deposits along the line of proposed extension of this railway, would, in a short time after its completion, constitute an immense revenue in itself from this source alone that would warrant the construction of the railroad extension and pay large dividends on the capital invested."

Not to mention the additional revenues that would naturally follow from the increase of population along said line as well as other sources of income of a permanent character. The present line in operation forms an excellent base or nucleus to assist in the construction of this extension. Preliminary surveys have been made for some 300 miles of the extension beyond Westport and actual surveys completed for the first 20 miles.

At the annual meeting in Brockville Sept. 3, the old board, etc., was re-elected.

The directors and officers for the current year are: President, E. R. Thomas, New York; Vice-President, J. Gerken, New York; Treasurer, O. F. Thomas, New York; other directors: M. L. Bowden, C. P. King, W. I. Burgess, R. Bowie, W. H. Comstock, J. Cummings, W. C. Fredenburg; Secretary, C. Heilshorn, New York; General Manager, M. Zimmerman, New York; Superintendent, W. J. Curle, Brockville; Assistant Secretary and Treasurer A. P. Van Tuyl, New York.

Canadian Northern Ry. Earnings, etc.

Gross earnings, working expenses, net profits, increases or decreases over 1905-06, from July 1, 1906:

	Earnings.	Expenses.	Net Earnings.	Increase or Decrease.
July..	$ 603,800	$ 397,900	$ 205,900	$ 63,400+

Approximate earnings for Aug., $594,900, against $357,900 for Aug., 1905.

C.P.R. Earnings, Expenses, etc.

Gross earnings, working expenses, net profits, increases or decreases over 1905-6, from July 1, 1906:—

	Earnings.	Expenses.	Net Profits.	Increase or Decrease.
J'ly	$5,967,967.82	$3,596,156.74	$2,371,811.08	$734,033.42+

Approximate earnings for Aug., $6,097,000 against $4,718,000 for Aug., 1905.

Duluth, South Shore and Atlantic Ry.—Gross earnings for July, $290,514.07; net earnings, $110,427.26 against $269,497.87 gross and $102,810.86 net for July, 1905. Approximate earnings for Aug., $305,092 against $287,670 for Aug., 1905.

Mineral Range Ry.—Approximate earnings for Aug. $77,930 against $68,009 for Aug., 1905.

Minneapolis, St. Paul and Sault Ste. Marie Ry.—Gross earnings for July, $1,082,976.23; net earnings, $539,226.60, against $777,433.97 gross and $345,918.32 for July, 1905. Approximate earnings for Aug., $976,799 against $775,050 for Aug., 1905.

Grand Trunk Ry. Earnings, Expenses, etc.

The following figures give the earnings and expenses of the G.T.R., the Canada Atlantic Ry., the G.T. Western Ry., and the Detroit, Grand Haven and Milwaukee Ry., separately, for Aug.:

G.T.R.	Aug., 1906
Earnings	$ 2,771,000
Expenses	1,965,000
Net earnings	$ 806,000
CANADA ATLANTIC RY.	
Earnings	$ 180,000
Expenses	145,000
Net earnings	$ 35,000
GRAND TRUNK WESTERN RY.	
Earnings	$ 480,000
Expenses	428,000
Net earnings	$ 52,000
DETROIT, GRAND HAVEN & MILWAUKEE RY.	
Earnings	$ 174,000
Expenses	111,000
Net earnings	$ 63,000

Canadian Pacific Ry. Statistics

The schedules attached to the annual report of the C.P.R., give in detail the particulars which go to make up the totals given in the statement of receipts and expenditure which was given in our last issue along with a number of statistical tables. The additional tables given below show the amount expended during the year ended June 30, 1906, upon construction on acquired and branch lines; the expenditure on improvements on main line and branches, and the expenditure on improvements upon acquired lines and branches. The total expenditure shown in these three tables is $13,464,208.96.

CONSTRUCTION—ACQUIRED AND BRANCH LINES

Lachine Canal branch	$ 55,307.70	
Souris branch Arcola—Regina extension	21,448.26	
West Selkirk branch—Gimli extension	16,885.98	
McGregor branch—Brookdale extension	18,401.81	
Snowflake branch	1,088.85	
Lauder branch	135,123.73	
Darlingford extension	5,927.95	
Wolseley—Reston extension	655,720.23	
Pheasant Hills branch	451,881.90	
Stonewall branch—Teulon extension	75,462.83	
Moose Jaw branch	103,333.74	
Surveys projected lines	118,803.71	
		$1,659,386.69
Toronto-Sudbury line		3,264,210.42
		$4,923,597.11

DETAILS OF EXPENDITURE ON ADDITIONS AND IMPROVEMENTS, 1906.

QUEBEC TO BONFIELD.

Additional sidings, buildings, stations and yards	$ 114,217.98	
Permanent bridges and improvements of line	37,829.73	
Wharves, dock and warehouses	17,904.04	
		$ 169,951.75
Montreal Terminals		792,705.27

BONFIELD TO PORT ARTHUR.

Additional sidings, buildings, stations and yards	$ 91,798.46	
Permanent bridges and improvements of line	216,536.18	
		308,334.64

PORT ARTHUR TO LAGGAN.

Additional sidings, buildings, stations and yards	$ 520,266.23	
Permanent bridges and improvements of line	1,167,177.81	
Winnipeg hotel and stat'n	665,361.34	
Winnipeg shops	264,649.60	
Winnipeg terminals	354,692.73	
Wharves, docks and warehouses	115,844.41	
Double track	1,253,931.17	
		4,341,923.29

LAGGAN TO VANCOUVER.

Additional sidings, buildings, stations and yards	$ 243,360.11	
Permanent bridges and improvements of line	596,011.46	
Wharves, docks and warehouses	2,899.52	
		842,271.09
Victoria Hotel		255,458.26

Carried forward—$6,710,644.30

BRANCH LINES.

South-Western branch	$ 7,370.04	
Stonewall branch	5,726.08	
Selkirk branch	5,009.94	
Emerson branch	64,787.71	
Nakusp and Slocan branch	48,778.87	
Revelstoke and Arrow Lake branch	8,827.27	
New Westminster branch	225.00	
North Star branch	153.54	
Waskada branch	1,300.00	
Buckingham branch	57.95	
McGregor branch	457.31	
Lake Temiskaming br'ch	1,296.00	
SOURIS BRANCH.		
Additional sidings, buildings, stations and yards	$ 49,568.67	
Permanent bridges and improvements of line	110,381.49	
ALGOMA BRANCH.		
Additional sidings, buildings, stations and yards	$ 16,627.19	
Permanent bridges and improvements of line	41,255.36	
CROW'S NEST PASS BRANCH.		
Additional sidings, buildings, stations and yards	$ 26,739.61	
Permanent bridges and improvements of line	192,591.48	
BRITISH COLUMBIA SOUTHERN RY.		
Additional sidings, buildings, stations and yards	$ 10,237.10	
Permanent bridges and improvements of line	64,844.73	
Balfour extension	3,409.54	
		659,644.88
Telegraph extensions and additions		177,632.74
Rented and temporary sidings		235,108.99
Total for improvements, main line and branches		$7,783,030.91

DETAILS OF EXPENDITURE ON LEASED AND ACQUIRED LINES

ONTARIO AND QUEBEC RY.

Additional sidings, buildings, stations and yards	$270,964.66	
Permanent bridges and improvements of line	218,941.13	
Wharves, docks and warehouses	3,977.92	
	$ 493,833.71	
Less sales real estate, Montreal	7,045.50	
		$486,838.21

ATLANTIC AND NORTH-WEST RY.

Additional sidings, buildings, stations and yards	$ 15,338.77	
Permanent bridges and improvements of line	128,745.84	
		144,084.61

MONTREAL AND WESTERN RY.

Additional sidings, buildings, stations and yards	$ 7,682.84	
Permanent bridges and improvements of line	14,109.02	
Account purchase of road	9,071.58	
		30,863.44

MANITOBA SOUTH-WESTERN COLONIZATION RY.

Additional sidings, buildings, stations and yards	$ 44,352.86	
Permanent bridges and improvements of line	23,802.91	
		68,155.77

COLUMBIA AND KOOTENAY RY.

Additional sidings, buildings, stations and yards	$ 487.27	
Permanent bridges and improvements of line	9,406.88	
		9,894.15

MANITOBA AND NORTH-WESTERN RY.

Additional sidings, buildings, stations and yards	$ 9,043.41	
Permanent bridges and improvements of line	6,547.57	
		15,590.98

GREAT NORTH-WEST CENTRAL RY.

Additional sidings, buildings, stations and yards	$ 20.83	
Permanent bridges and improvements of lines	2,132.95	
		2,153.78
Total, leased and acquired lines		$757,580.94

STATEMENT OF C. P. R. PENSION DEPARTMENT TO JUNE 30, 1906.

Balance at June 30, 1905	$424,280.16
Amount contributed by Co. for year	80,000.00
Amount received as interest	25,607.13
	$529.887.29
Payment of pension allowances for year	21,284.35
Balance in cash and investments	$508,602.94

NUMBER ON PENSION ROLL AT JUNE 30, 1906.

Under 60 years of age	11
Between 60 and 70 years of age	77
Over 70 years of age	76
Total	164

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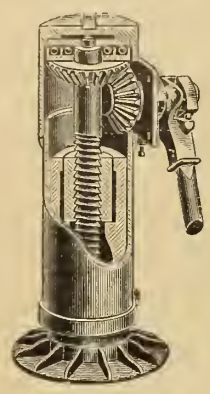
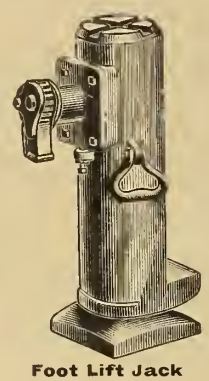
ARE MADE IN CANADA AND SAVE YOU DELAY AND DUTY ON AMERICAN MADE JACKS.

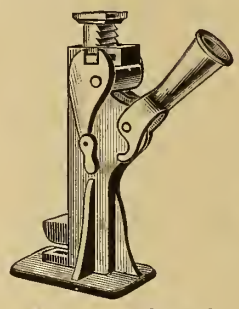


Sectional View

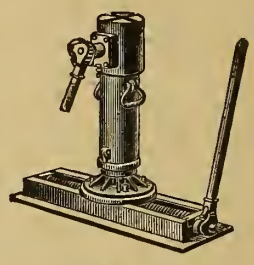


Foot Lift Jack

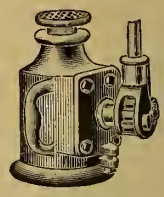
50 Styles 8 to 70 Tons Capacity
Carried in stock for IMMEDIATE DELIVERY



15 Ton Track Jack



Traversing Jack



Journal Jack

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Stock Carried by W. H. C. MUSSEN & CO., MONTREAL

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Operating a new system of convertible parlor and sleeping cars whereby the beds are lowered into ventilated, steel-lined, dust-proof receptacles underneath the car, affording the passenger the advantage of an open parlor, with movable chairs, sofas, etc., by day, with no semblance of a sleeping car.

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Projected Lines, Surveys, Construction, Betterments, Etc.

Alaska Central Ry.—A contract is reported let to Welch Bros. of Spokane, Wash., for the construction of an additional 140 miles on this line. The contractors expect to reach the Chicatoon coalfields early in 1907. The Tanana Railway Construction Co. has the general contract for the construction of the line. (May, pg. 253).

Belcher Mountain Ry.—A line eight miles in length was expected to be completed Sept. 30, in Ferry county, Wash., to the north of Spokane, to connect with the Washington and Great Northern Ry. (the U.S. section of the Vancouver, Victoria and Eastern Ry.), and the Kettle Valley Lines.

Bella Coola to Yellowhead Pass.—Application will be made next session of the B.C. Legislature for an act incorporating a company to construct a railway from the Yellowhead Pass, through the placer mining district of British Columbia, and on to Bella Coola. Wilson, Senkler & Bloomfield, Victoria, B.C., are solicitors for applicants.

Bessemer and Barry's Bay Ry.—Construction on the first five miles of this railway is well under way, and it is expected to be completed and ready for operation by about Oct. 15. The line extends from L'Amable station on the Central Ontario Ry., near Bancroft, Ont., to the iron mines of the Mineral Range Iron Mining Co. The railway company is owned by the mining company, which also has constructed the line, but it will be operated as the B. and B.B. Ry. The mining company has 8,000,000 to 10,000,000 tons of ore in sight, which will be shipped over the line. The ore is a high grade Bessemer magnatite, and will be delivered on board the cars. The company does not propose to engage in any further construction at present, although its charter permits of the construction of a line from L'Amable, on the Central Ontario Ry., to Barry's Bay, on the Ottawa division of the G.T.R. (the old Canada Atlantic Ry.). The officers and directors are: President, H. C. Farnum, Bessemer, Ont.; Vice-President, W. J. Sargant, Bancroft, Ont.; Secretary-Treasurer, H. L. Bingham, Bessemer; other directors, J. C. Dale, W. Cross. (July. 1905, pg. 281).

Brandon, Saskatchewan and Hudson Bay Ry.—Track has been laid on a considerable mileage from the International boundary towards Brandon, Man., and a train service is being operated to Alcester. Tracklaying is being gone on with on other portions of the line, and it is expected to have a train service in operation from the International boundary to Brandon before the end of the year. (July, pg. 379).

Colchester Coal and Ry. Co.—Tenders have been asked for the construction of four miles of railway from the main line of the Intercolonial Ry. near Debert, N.S., to the company's coal mines, about 4 miles. The C.C. and Ry. Co. has power to construct a railway, but there is a Nova Scotia act authorizing the construction of a similar line, with the title of the Debert Ry. Co.

Delaware and Hudson Co.—Tracklaying on the 30 miles of line between Rouse's Point, at the International boundary, and St. Constant, Que., was expected to be completed Sept. 30. The grading between Rouse's Point and Napierville had been completed by Rogers & Quinlan, the sub-contractors, at the beginning of the month, and the sub-contractors for the rest of the line, Laverdure & Sims, had their work completed in time for the tracklayers. The tracklaying was done, and the ballasting is being done, by the general contractors, the Pacific Construction Co. The line is being constructed by the Napierville Junction Ry., and will be operated by the Delaware and Hudson Rd., which will then run over the C.P.R. into Montreal. It is also stated that the C.P.R. will run trains over the line from St. Constant. (Aug., pg. 451).

Erie, London and Tillsonburg Ry.—The meeting for the organization of the E.,L. and T. Ry. Co. has been called to be held at Tillsonburg, Ont., Oct. 15. The shareholders will also be asked to authorize the making of a contract for the construction of the line, the issue of bonds and other securities and for any other general business. (Aug., pg. 451.)

Fording Valley Ry.—We are informed that all that is at present being done upon the projected railway in British Columbia is survey work. The engineers were expected to have their work completed a few days after we were advised, and their report would be considered by the directors, who will decide whether construction will be gone on with this fall or not. (Sept., pg. 527).

Halifax and Southwestern Ry.—C. W. Spencer, General Manager Mackenzie, Mann & Co.'s Eastern Lines recently completed a trip over the H. and S.W.R. The line between Halifax and Yarmouth is completed, with the exception of a stretch of about three miles east of Barrington. This was expected to be completed early in October, and it was hoped to have this portion of the line in operation by the fall. The branch from Middleton to Victoria Beach was opened for traffic early in the month.

Indian River Ry.—The Dominion Parliament will be asked next session to pass an act extending the time within which the company's projected railway may be constructed. (Dec., 1903, pg. 425).

Intercolonial Ry.—The second track between Halifax and Bedford, N.S., has been completed, and it is the intention to continue the second-track work as far as Windsor, N.S.

The Minister of Railways, speaking at St. John, N.B., on his recent trip of inspection over the I.C.R. referred to the necessity that was apparent in that district for the construction of a second track to handle the suburban traffic. It would be necessary to have an appropriation by Parliament before anything was done, but possibly next year the work might be taken in hand. The time was near at hand when a second track would be required as far as Hampton, but that was a matter for future consideration.

The improvements being made on the old Canada Eastern Ry. are being pushed forward. About 40,000 ties have been placed and it is expected to put in another 20,000 before work is completed for the season. The old 56-lb. rails are being taken up upon 40 miles of the line, and are being replaced with 70-lb. steel. Some new steel spans have been put up, and it is intended to strengthen the abutments of a number of the bridges. It is expected to complete 20 miles of ballasting before the winter. Two miles of additional sidings have been laid, and a number of other improvements carried out. Tenders have been invited for about 9,500 rods of wire fencing for this part of the line. (Sept., pg. 527).

Kingston, Smith's Falls and Ottawa Ry.—In 1893 the property owners of Ottawa voted a bonus of $50,000 to a company with this title to construct a line connecting these points. Other subsidies were offered to the company, but no construction was done. It was reported in July, 1905, that it was likely that the charter would be taken over by the G.T.R. with the object of securing a short connection between Toronto and Ottawa. Negotiations are being conducted by A. T. Drummond, Toronto, with the various municipalities, through which the line will pass, to secure financial aid. The negotiations include the obtaining from the Ottawa City Council of an extension of three years within which the line may be constructed. Mr. Drummond states that the surveys have been completed, and that construction will be commenced at once. (Aug., 1905, pg. 351).

Klondike Mines Ry.—Latest despatches from Dawson, Yukon, stated that on Aug. 30, grading had been completed to Cook's roadhouse, and that track had been laid to Homestead Gulch. The big trestle at that point was expected to be completed early in Sept. It was expected that a train service would be put in operation to King Dome at an early date. (May, pg. 255).

Kootenay Central Ry.—C. H. Pollen, who is the principal promoter of this company, on his recent return to Cranbrook, B.C., from Great Britain said: "We are waiting for the Provincial Government to renew the subsidy formerly granted us. I can say that if that subsidy is not renewed there is no prospect of the road being built either by us or by any other company." (Sept., pg. 527).

Malone and Hopkins Point Ry.—Application will be made next session of the Dominion Parliament for an act incorporating a company for the purpose of constructing a railway from the International boundary near Dundee, to Hopkins Point, Que. Parliament will be asked to declare that the railway proposed to be constructed is a work for the general advantage of Canada. Scott & Curle, Ottawa, are the solicitors.

The Matane and Gaspe Ry. Co. has issued an illustrated booklet describing the scenic and commercial advantages of the country which its projected line will traverse. The proposal is to construct from St. Octave de Metis to Gaspe Basin, and from St. Octave de Metis to the National Transcontinental Ry., with branches to Rimouski and other places. The present population of the two counties of Matane and Gaspe, is well settled along the shore line, but the agricultural, forest and mineral resources of the interior are undeveloped, so that the prospects for traffic are considered to be good. A point to which the company is directing special attention is that the line will reach Mont Louis and Grand Greve, ocean ports open all the year; Gaspe and other ports which are open the greater part of the year. The distance from Montreal to Liverpool via Gaspe is 2,963 miles, whilst the distance between the same ports via Halifax is 3,338 miles, and via St. John is 3,332 miles; the ocean distance from Gaspe to Liverpool being 2,374 miles The harbor at Grand Greve is 20 miles nearer Liverpool than Gaspe.

Midland Ry. of Manitoba.—A block of land 135 acres in extent, north of the railway tracks at Portage la Prairie, Man., and inside the town limits, has been sold to J. Fisher, K.C., solicitor to the M. Ry. of Manitoba. (July, pg. 381).

Midway and Vernon Ry.—D. H. Macdowall, ex-M.P. for Saskatchewan, returned to Victoria, B.C., Sept. 17, and stated that as the result of the company's negotiations in the east, construction would be resumed upon the railway at once. A satisfactory arrangement had been made for financing the work of construction. (Sept., pg. 529).

Montreal Bridge and Terminal Co.—The bridge which this company plans to erect across the St. Lawrence River, is estimated to cost, with the terminals in Montreal and the connections with the lines on the south side of the river, about $12,000,000. This amount is stated to have been provided by London financial houses, where the company has its offices. The bridge will provide tracks for both steam and electric railways, as well as for vehicles and foot passengers. It will contain a cantilever span 1,500 ft. in length, which will leave the channel of the river unobstructed for a greater width than the

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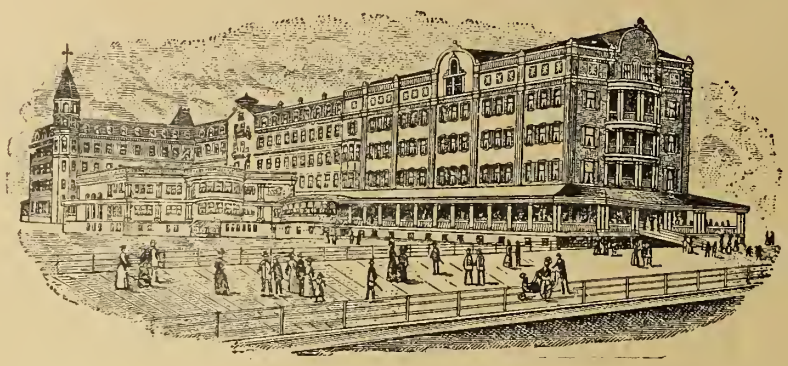

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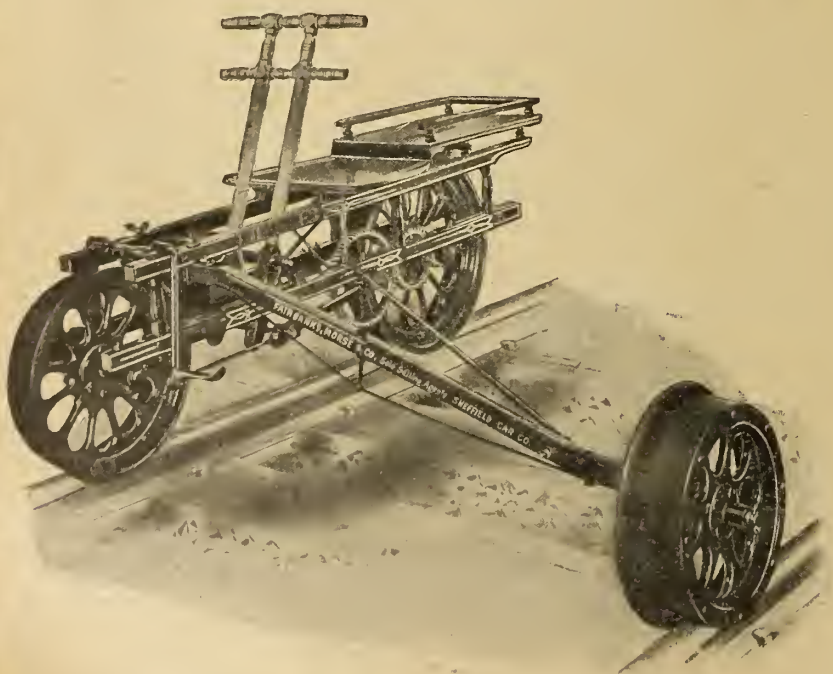

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Harbor Commissioners demand. Sir Douglas Fox, London, Eng., is the consulting engineer, and F. S. Williamson, New York, is engineer in charge. (See Montreal-Longueuil Bridge, July, pg. 381).

Naplerville Junction Ry.—See Delaware and Hudson Co.

New Brunswick Coal and Ry. Co.—The contract given for the improvement of the old Central Ry. of New Brunswick, and the new piece to Minto, constructed by the N.B.C. and Ry. Co., by the Commissioners appointed by the Provincial Government, called for the completion of the work by Aug. 1. The contractors have been handicapped latterly by the scarcity of labor, and by some accidents to machinery. The Commissioners decided, with a view of getting all the ballasting done this season, to strengthen the Coal Creek bridge, instead of filling in the trestle work. (July, pg. 381).

Owen Sound and Meaford Ry.—A survey party which has been in the field since July 1, completed its work at the end of Aug. The party was in charge of F. Wickware, of Montreal, and the route surveyed runs from the shore road, Meaford, through Centreville, to about a mile and a half west of Annan, through Leith to the Carney lumber mills, thence along the line of the road via the Canadian Heating and Ventilating Works into Owen Sound. (Sept., pg. 529).

Prince Albert and North Saskatchewan Ry.—Senator Davis was in Winnipeg, Sept. 5, and stated in an interview that the company proposed to construct a line from Prince Albert to a junction at Pas Mission, with the line Mackenzie, Mann & Co. are constructing from Etiomami, Sask. (Sept., pg. 529.)

Prince Edward Island Ry.—The car shops at Charlottetown, P.E.I., for which the Department of Railways has tenders under consideration, is to be 253 ft. 2 in. in length, by 54 ft., with a height of 33½ ft. from base of rail. The tenderers were to put in prices for brick construction, or if they so desired, a concrete structure. It is reported that a contract has been let to E. A. Walberg, Montreal, to erect the building in reinforced concrete. (Sept., pg. 529).

Quebec and New Brunswick Ry.—Application will be made next session of the Dominion Parliament for an act to revive the charter powers of the Quebec and New Brunswick Ry. Co. The company was incorporated in 1870, and reincorporated in 1900 to construct a railway from Connors, N.B., to St. Anselme or Chaudiere Jct., Que.; and a subsidy was voted in 1903. Some preliminary construction was done in that year. The proposed application is not only to revive the charter, but to amend by giving power to connect with the G.T. Pacific Ry. at some convenient point in the St. Francis valley, and to declare legal all proceedings purporting to have been taken in virtue of the provisions of the old acts. (July, 1904, pg. 235.)

Quebec Union Station Proposals.—There are reported to be under consideration of the Government proposals for the construction of one or more union stations in the city of Quebec. The suggestion is for a union station on the site of the Champlain market for the G.T. Pacific Ry., and all railways entering the city over the Quebec Bridge; a second station at the Palais, in connection with the C.P.R., but available for all other lines, and a third station at St. Roche's. The matter is being much talked of locally, but no definite action has been decided upon in the way of bringing the discussion to a final head. The future station accommodation in Quebec is a question of great importance to the city, owing to the construction of the G. T. Pacific Ry. and the bridge. The completion of the bridge will bring three or four railways into the city which do not now have connection with the north shore of the St. Lawrence.

Reid Newfoundland Ry.—The summer work on this railway has included the reducing of a number of heavy gradients, the construction of snow fences, and the ballasting of a considerable mileage. Coal depots have been built at convenient points, and the station and yard facilities have been improved. (Aug., pg. 455).

St. Mary's and Western Ry.—By-laws have been passed by a number of municipalities granting bonuses in favor of the construction of this projected railway. The present purpose of the company is to construct a line from St. Mary's to Embro, Ont., at which point it will connect with the C.P.R. line which is projected from Ingersoll, through Embro to Stratford. The line which, it is understood, will be operated by the C.P.R. when completed, will open up a section of country which has been looking for railway accommodation for some years. The act incorporating the company was passed by the Dominion Parliament in 1905, the incorporators being J. M. Adam, T. O. Robson, F. E. Butcher, P. S. Armstrong, J. Chalmers, R. S. Box, R. W. Dillon, St. Mary's; J. A. Rollins, J. W. Taylor, J. B. Carling, Exeter. J. G. Macklin formerly divisional engineer on construction, Guelph and Goderich Ry., Guelph, has been appointed Chief Engineer. (March, 1905, pg. 95).

Sallsbury and Harvey Ry.—A new bridge is being erected at Turtle Creek, N.B., 10 miles from Salisbury, and pending its completion trains are run from each end of the line to the bridge. (May, pg. 255).

Spokane International Ry.—A statement was recently made at Seattle, Wash., by D. C. Corbin, who is constructing this line from Seattle, Wash., to the International boundary, to which point the C.P.R. has constructed a branch line from Yakh, that trains will be running the entire length of the line early in 1907. Dining and sleeping cars and other equipment, he said, would be supplied by the C.P.R., and the trains would be run so as to connect with the C.P.R. transcontinental service. (Sept., pg. 529).

Springfield Ry. Co.—There has been constructed in Nova Scotia a regular standard gauge railway for lumbering purposes, about eight miles in length, near Bridgewater, by the Davison Lumber Co. The company owns extensive timber areas in Lunenburg, Queens and Annapolis counties, and it was for the purpose of developing these that the construction of the line was decided upon. The plans were deposited with the Provincial Engineer at Halifax, in Aug., 1904, for a section of 4½ miles, and subsequently plans for the construction of a further 3¼ miles were deposited. The plans were approved, and construction was proceeded with, and upon inspection by —. Hendry, C.E., was opened for traffic. The line, the Provincial Engineer reports, while having rather heavier gradients than is desirable on a railway to carry on a general passenger and freight traffic, is well adapted for the present trade, and the location is such that these gradients can be improved with a small expenditure at any time it is proposed to take up passenger traffic or extend the line. In other respects the railway is practically up to the standard for a railway suitable for carrying on a general passenger and freight traffic.

Temiskaming and Northern Ontario Ry.—The commissioners arranged to take over the 25 miles of track from New Liskeard to Englehart, Ont., Oct. 1, which will give 138 miles which have been completed, and are in charge of the operating department. Grading has been completed to McDougall's chute, 93 miles north of New Liskeard. The big timber trestle at Wild Goose, mileage 84, is completed, and further tracklaying is in progress. (Sept., pg. 529).

Toronto Union Station.—The officials of the C.P.R. and G.T.R. have held a number of consultations over the plans for the new Union Station at Toronto, and arrangements are in progress for adjusting several differences between them as to the layout of the building and connecting lines. The planning of a work of this kind is an important matter, and the companies are desirous of securing the best possible accommodation in the space at their disposal. (Aug., pg. 457).

Vancouver, Victoria and Eastern Ry.—Several survey parties have been sent out since Sept. 1 into the Roche River, Cedar Flat, and Silver Creek districts, these parties having been withdrawn from the Coquihalla territory. Local reports state that the proposed route through the Coquihalla country is to be abandoned, more satisfactory gradients having been found in the Roche River territory. It is also said that the new route will give a shorter mileage and that the construction will be less expensive. Another survey party has started out from Cloverdale to work eastwards to meet the parties from Silver Creek. (Sept., pg. 529).

York and Carleton Ry.—The Department of Railways, under the authority of the act granting aid to certain railways, has entered into a contract with the Y. and C. Ry. for the construction of 5 miles westerly from the present terminus at Stanley, N.B. (Oct., 1905, pg. 461).

Canadian Northern Railway Construction.

Canadian Northern Quebec Ry.—C. W. Spencer, General Manager Mackenzie, Mann & Co.'s Eastern lines, in an interview at Quebec, Sept. 19, stated that the delay in the construction of the Great Northern Ry., one of the constituent companies, into Quebec, was due to the fact that the originally located route from Garneau Junction was required for the National Transcontinental Ry., and another route had to be surveyed. Upon this new route about 20 miles had been graded, and the ties had been laid ready for tracklaying to be gone on with. The company was also replacing the 56-lb. rails with 80-lb. rails from Shawinigan Falls to Hawkesbury; and was also carrying out other works of improvement upon the line.

Canadian Northern Ontario Ry.—The contractors for the construction of the line from Hawkesbury to Ottawa, Ont., are Schell & Kennedy, and their headquarters are at Rockland, Ont. We have been advised that the grading is progressing satisfactorily; that it is expected to get finished to Rockland this fall, and to Ottawa early in 1907. The total distance is about 55 miles, and the line will connect the C.N. Quebec Ry. with Ottawa. (Aug., pg. 467).

C. W. Spencer, General Manager, made a trip of inspection over the line from Toronto to Parry Sound, Ont., Sept. 8, and on Sept. 16, D. D. Mann, Vice-President, and D. B. Hanna, Third Vice-President, had a run over the line. It was expected to have a regular train service in operation at the end of Sept. Satisfactory arrangements have been made for an entrance of the company's trains into the existing Union Station, Toronto.

All the stations on this line are to be equipped with Acton Burrows Limited enamelled iron station name signs, lettered in white on dark blue ground, which have been adopted as standard on all C.N.R. lines.

Canadian Northern Ry.—We are advised that the C.N. Ry. intends erecting workshops on its own property at Fort Rouge, Winnipeg, acquired some years ago. All the plans for the shops have not been approved; conse-

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Yours truly,
W. H. MOORE, Manager

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quently, we are informed, nothing can be definitely stated as to the company's intentions. Since we received this information it is reported that the company is negotiating with a view of obtaining a site for locomotive and car shops at Montreal, and that if this can be done, the only shops to be erected at Winnipeg will be the repair shops. The reason given for this alleged change of plan is the labor question.

Track has been laid on the branch line from Emerson to the main line at Sprague, Man., and an inspection trip was made Sept. 9. The branch was completed to Ridgeville, 9.9 miles easterly from Emerson in 1904, and the extension now completed makes the branch altogether 73 miles long. The line gives a new and short route from Southern Manitoba to Port Arthur, Ont., and will enable the C.N.R. to haul grain from its Morris-Brandon and other branches to the lake without passing through Winnipeg, thus saving a considerable mileage.

An unconfirmed press report states that a contract has been let to A. D. McRae, Fort Rouge, Winnipeg, for the grading of 50 miles of an extension of the Oak Point branch, from Oak Point to a point north of Gladstone, Man.

We were advised Sept. 27, that plans have been completed for an extension of the line, which now terminates at Oak Point, Man., northerly along the east shore of Lake Manitoba. The objective point for the present is the Manitoba Gypsum Co.'s gypsum mines, distant about 100 miles.

The report that the C.N.R. and the G.T. Pacific Ry. had united forces for the purpose of constructing a line to Hudson Bay, has been denied by D. B. Hanna, Third Vice-President C.N. Ry., Toronto, and also by an official of the G. T. Pacific Ry. The C.N.Ry. is constructing a line from Etiomami, Sask., to Pas Mission, and it was expected to have 30 miles of grading completed by the end of Sept. (Aug. pg. 467).

The question of a union passenger station at Brandon, Man., is said to have been practically agreed to between the C.N. Ry. and the officials of the Brandon, Saskatchewan and Hudson Bay Ry. (one of the J. J. Hill lines now under construction), but the C.P.R. interests are said to be opposed to it. The C.N. Ry. has purchased the Salvation Army barracks, and some adjoining properties, and will utilize it for station and terminal purposes.

The Prince Albert, Sask., City Council has passed a by-law, subject to confirmation by the property owners, voting $25,000 to the company, towards the cost of the buildings necessary for a divisional point. It was first proposed that the money should be devoted to add a traffic way to the railway bridge which is to be built across the river, but as it was suggested that the Provincial Government would revise its grant of $50,000 if the city's grant was made, an arrangement was made with D. D. Mann, Vice-President, to make the city's $25,000 available for divisional point buildings in Prince Albert. The bridge, Mr. Mann stated, Sept. 3, would cost about $400,000, and would probably be constructed on the plans prepared by the Dominion Government some years ago. These plans show a steel bridge on concrete piers, with a railway track in the centre and roadways on either side.

A spur line is to be constructed from some point between Edmonton and the Edmonton, Yukon and Pacific Junction, southerly to the C.N.R. at Fort Saskatchewan, Alta.

Edmonton, Alta., reports state that 122 cars of steel rails were in the yards there Sept. 11, and that the company's tracklaying machine was working westwards from that city. It is expected to have track laid for about 20 miles to the Stoney Plains, and northerly on the Morinville branch, for about 30 miles this fall. (Sept., pg. 545).

G.T.R. Betterments, Construction, Etc.

Notice has been given of application to the Railway Commissioners for authority to construct a spur line from the Central Vermont Ry. near its junction with the G.T.R. at St. Lambert, Que., southerly to lot 261, in St. Antoine de Longueuil. The management is said to have under consideration plans for the erection of a large hotel in connection with its Bonaventure station, Montreal.

Negotiations are said to be in progress with the Dominion Government respecting the proposed new terminal facilities in Ottawa and for the purchase of the Corry block adjoining the Central station there.

We were advised Sept. 12, that surveyors were in the field with a view of making the necessary plans for laying a second track between Port Hope and Midland, Ont., but that it was too early to say when the work of construction would be started.

After some years' negotiation and legislation the G.T.R. has agreed to pay one-third of the cost of the York St. bridge, Toronto, approximately $60,000.

W. D. Robb, Superintendent of Motive Power, visited Stratford, Ont., Sept 4, and stated that the company would not begin the proposed enlargement of the shops this year, the by-law closing Nelson St. having been passed too late to permit of the necessary arrangements being made.

A block of property has been purchased northwest of the station at Goderich, Ont., upon which it is proposed to erect a freight office and freight shed. Additional sidings are also to be put in at the wharf to connect with the new elevator, and the yard will be generally remodelled. It is also proposed to erect a new roundhouse.

The lengthened negotiations between the company and the London, Ont., City Council, after having been practically concluded more than once, and as often almost abandoned, were apparently closed up Sept. 17, and the papers are being prepared. The plans include track elevation, more commodious buildings, additional switches, and extra safety appliances, and a fixed assessment on the company's property. (Aug., pg. 475).

Pere Marquette Rd. Plans.—An unconfirmed press despatch from Chicago, Ill., dated Sept. 14, says: "Plans for the rehabilitating of the Pere Marquette system and making it a powerful factor in the railway world and effectually changing the railway map of the east, are said to be well under way in New York and likely to be consummated within a short time. The plan provides for the establishing of through freight and passenger lines over the Lehigh Valley and the Pere Marquette, thus making the Michigan line an important factor in Chicago-New York business. At the same time it would cut off the Grand Trunk's New York connection, now made over the Lehigh Valley's tracks, and put the Canadian line out of the New York business, unless it can arrange for other connections at Suspension Bridge. J. P. Morgan, a large holder of Pere Marquette and Lehigh Valley stock, is understood to have promoted the scheme."

There is no truth in the report, we have been advised, that the C.P.R. had decided to erect a summer hotel at Blue Sea Lake, in the Gatineau country, Quebec, reached by the C.P.R. branch, originally known as the Gatineau Valley Colonization Ry.

The members of the Canadian Ticket Agents' Association during their visit to Mobile, Alabama, in Nov., will make their headquarters at the Cawthon and Bienville hotels, both of which are under the same ownership and management, and are the principal hotels there.

Railway Finance, Meetings, etc.

Bay of Quinte Ry., Thousand Island Ry. and Oshawa Ry.—The annual meetings of these Rathbun Companies were called to be held at Deseronto, Sept. 8, but were adjourned subject to the call of the President.

Buffalo and Lake Huron Ry.—The report for the half-year ended June 30, shows that after providing for the interest on the first and second mortgage bonds, the available balance, including the amount brought forward from the previous half year, was £14,421 17s. 0d., enabling the payment of the usual dividend of 5s. 3d. per share, and leaving a balance of £637 3s. 9d., to be carried forward against £585 12s. 11d. No changes have been made in the company's investments since the last report. The company's line is leased to the G.T.R., at a rental of £90,000 a year, payable half-yearly; and it owns securities upon which the half-year's interest of £371 2s. 4d., and the accounts also show the receipt of £9 5s. 10d. interest on deposit at the bank. The half-year's interest on the £297,600 of first mortgage 5½% bonds absorbed £8,184; and the half year's interest on the £466,158 of second mortgage bonds amounted to £12,819 6s. 11d., while the office expenses amounted for the same period to £541 7s. 2d. The half-yearly meeting was held in Liverpool, Eng., Sept. 5, when the report was passed.

Canada Atlantic Ry.—The annual meeting of shareholders was held at Ottawa, Sept. 25, Following are the officers and directors for the current year: President, C. M. Hays; Vice-President, E. H. Fitzhugh; Secretary and Treasurer, F. Scott; other directors: F. H. McGuigan, W. H. Biggar, J. Hobson, J. W. Loud; General Auditor, H. W. Walker. All of them are G.T.R. officials.

Canadian Northern Quebec Ry.—A meeting of shareholders has been called to be held at Toronto, Oct. 22, for the purpose of authorizing the directors to make an issue of perpetual 4% debenture stock, to be secured by mortgage in the usual way, of a sufficient amount to take the place of and be exchanged for bonds of the authorized issue of Great Northern Ry. of Canada, Chateauguay and Northern Ry., and Quebec, New Brunswick and Nova Scotia Ry., the companies amalgamated with the title of the C.N.Q. Ry. Co.; and an issue of $20,000 a mile on all railways to be constructed by the company. The payment of the interest and principal of the bonds is to be guaranteed by the Canadian Northern Ry. in accordance with the terms of an agreement made.

Canadian Pacific Ry.—Sir T. G. Shaughnessy in an interview reecntly stated that there was no prospect of a company being formed to take over the C. P.R. land grants. It had been the policy of the C.P.R. not to form any subsidiary companies, and this policy would still be adhered to, the lands being administered as at present, and accounts kept separate from the general traffic accounts of the company.

Central Counties Ry.—The Dominion Parliament will be asked next session for an act granting an extension of time for the construction of the company's projected railway; amending its powers as to the issue of bonds and debentures by authorizing the issue of bonds to the extent of $12,500 a mile on sections one and three of its line, and directing the use of the money realized by such issue to be utilized to redeem the outstanding bonds.

International Ry. Co.—At the annual meeting at Buffalo, N.Y., Sept 25, the retiring directors were re-elected.

Massawippi Valley Ry.—Following are the officers and directors for the current year: President, Hon. J. G. Foster, Ottawa; Vice-

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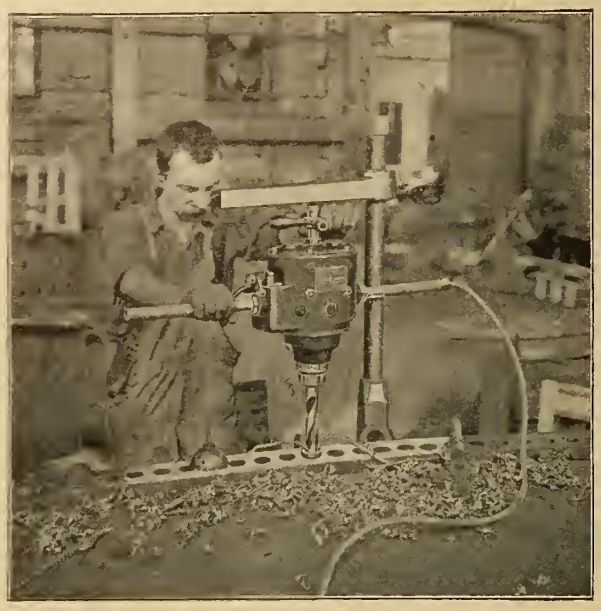

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President, C. W. Cote, Sherbrooke, Que.; Treasurer, J. H. Williams, Bellows Falls, Vt.; other directors: C. K. Kathan, Rock Island, Que.; Hon. C. C. Colby, Stanstead, Que.; C. D. White, F. Grundy, Sherbrooke, Que.; H. N. Turner, St. Johnsbury, Vt.; J. W. Dunklee, Boston, Mass.; Secretary, S. Stevens, Stanstead, Que. The railway is operated under lease by the Boston and Maine Rd.

New Brunswick and Canada Ry., and St. Stephen and Milltown Ry.—The annual meetings of these two companies, whose lines are leased to the C.P.R., held at St. John, N.B., are merely formal, for the purpose of re-electing the directors.

New Brunswick Southern Ry.—An unconfirmed report from St. John, N.B., states that the C.P.R. has acquired the N.B.S. Ry., which runs from St. John to Stephen. The railway is practically the property of the trustees of the estate of the late Russell Sage, of New York.

Nosbonsing and Nipissing Ry.—The retiring board of directors has been re-elected. The company does not issue any annual report. It is a logging railway and is used wholly for carrying the logs of J. R. Booth from Lake Nipissing to the Ottawa River waters on Lake Nosbonsing, Ont.

Quebec and South Shore Ry.—Another action has been started having for its object the voiding of the sale of the separate lines worked under this title to Senator Beique for the Delaware and Hudson Rd. The plaintiff is H. A. Hodge, of Boston, Mass., who claims to be a creditor for $565,000 and the holder of actions estimated at $1,140,000, the ground set up being irregularities in the granting of order of sale. The defence sets up the recent decision of the Imperial Privy Council in England, and asserts that although summoned ten times the plaintiff never appeared before the courts to claim any rights.

Red Mountain Ry., Nelson and Fort Sheppard Ry., Yale-Kootenay Telegraph Co.—At the annual meetings of the shareholders of these subsidiaries of the Spokane Falls and Northern Ry. (a Great Northern Ry., U.S., company), held at Rossland, B.C., Sept. 12, the retiring directors were re-elected. They are officers or officials of the S.F. and N. Ry.

Temiscouata Ry.—Traffic receipts for Aug. $17,030.72 against $13,882.89 for Aug., 1905.

Temiskaming and Northern Ontario Ry.—Net earnings for the six months ended June 30 amounted to $106,207 against $26,476 for same period, 1905.

Toronto, Hamilton and Buffalo Ry.—Earnings for Aug. $53,023.93, against $55,-234.33 for Aug., 1905.

Great North-Western Telegraph Co.—The annual meeting of the shareholders was held in Toronto, Sept. 26, when the report was adopted and directors re-elected. Following are the officers and directors for the current year: President, H. P. Dwight, Toronto; Vice-President, A. Brown, Hamilton, Ont.; Vice-President and General Manager, I. McMichael; other directors: J. Hedley, W. C. Matthews, H. N. Baird, Hon. J. K. Kerr, Toronto; Col. R. C. Clowry, J. B. Van Every, New York; Secretary-Treasurer, G. D. Perry; Auditor, A. C. McConnell.

The Railway Agents' Association of New England held its annual meetings in St. John, N.B., Sept. 15, 16 and 17. There were 67 members of the association, with their wives or other members of their families, present. The party started from Boston, Mass., Sept. 14, by train for Fredericton, and took the steamer for St. John, while in returning the str. Penobscot was taken as far as Eastport, and the rest of the journey was made by rail.

TRADE AND SUPPLY NOTES.

The matter which appears under this heading is compiled, in most cases, from information supplied by the manufacturers of, or dealers in, the articles referred to, and in publishing the same we accept no responsibility. At the same time we wish our readers to distinctly understand that we are not paid for the publication of any of this matter, and that we will not consider any proposition to insert reading matter in our columns for pay or its equivalent. Advertising contracts will not be taken with any condition that accepting them will oblige us to publish reading notices. In other words, our reading columns are not for sale, either to advertisers or others.

The American Locomotive Co. has issued a booklet descriptive of some Atlantic type locomotives which it has constructed at its various plants. Outline plans illustrative of the type are given in the opening pages, while illustrations and specifications of 26 completed locomotives follow.

T. J. Drummond, a director of the Lake Superior Corporation, stated in Montreal recently that the Algoma Steel Co., one of the subsidiary companies, had closed orders for 92,000 tons of steel rails, 32,000 tons being for the National Transcontinental Ry., 10,000 tons for the Michigan Central Rd. and 50,000 tons for the C.P.R.

The John Morrow Screw Co. has been incorporated under the Ontario Companies' Act, with a capital of $100,000 and offices at Ingersoll, Ont., to manufacture and deal in iron, steel, and other metals, etc. The provisional directors are: J. A. Coulter, O. E. Robinson, Ingersoll; W. H. Shapley, F. H. Deacon, Toronto; W. H. Wortman, London, Ont.

The American Locomotive Co.'s annual report for 1905 shows a surplus over charges and preferred dividends of $3,429,000; the gross earnings were $42,547,876, an increase of $18,397,675. During the year $2,000,000 was set aside as an extraordinary improvement and betterment fund, and an initial quarterly dividend at the rate of 5% per annum was declared on the common stock.

Paul Dickinson, of Paul Dickinson Incorporated, railway supplies, Chicago, died at his home at Winneska, Ill., Aug. 31, of anemia. He had been ill for nearly six months, but was able to attend to business matters until shortly before his death. He was born in Milwaukee, Wis., in 1867, and went into the railway supply business in Chicago before he was 20 years old. He made a specialty of locomotive house ventilation. The business will be continued as usual.

J. E. Botterell, heretofore manager of the Canadian Fairbanks Co.'s Vancouver branch, has been appointed manager of the Winnipeg branch, succeeding F. R. Newman, who resigned on receiving another appointment. W. A. Akhurst has been appointed manager of the Vancouver branch. The staff of the Winnipeg branch presented Mr. Newman with an address and diamond ring on his retirement, and H. J. Fuller, President of the Canadian Fairbanks Co., entertained Messrs. Newman and Botterell and a number of the staff at dinner at the Royal Alexandra, Winnipeg.

The Dominion Government has issued a proclamation bringing into force the provisions of the act for the preservation of peace in public works in districts within 20 miles each side of the located line of the National Transcontinental Ry. in Manitoba, Ontario and Quebec. In connection with this matter the Ontario Government has appointed W. W. O'Brien to be police magistrate for the Thunder Bay District, outside Fort William along the line of the Lake Superior branch of the G.T. Pacific Ry., and such portions of the main line in the Rainy River District as are accessible from Fort William.

MAINLY ABOUT PEOPLE.

Archer Baker, European Manager C.P.R., London, Eng., spent some time in Montreal at the end of Sept.

C. P. White, G.T.R. agent Cornwall, Ont., was married Aug. 28 at Glengarry, Ont., to Miss M. I. Macdonald.

H. P. Dwight, President G.N.W. Telegraph Co., has returned to Toronto from a business trip to Winnipeg.

C. E. Crowley, of the G.T.R. engineering staff, has been appointed Chief Engineer Northern Ry. of Costa Rica.

F. M. Warde, Manager of the Canada Railway News Co.'s restaurant at Allandale, Ont., died there Sept. 10.

R. G. Reid, President Reid Newfoundland Co., Mrs. and Miss Nellie Reid, returned to Montreal Sept. 30 after a holiday in Scotland.

J. J. Brignall, chief clerk in the C.P.R. district passenger office, Toronto, was married at Toronto Sept. 12, to Miss N. Reed, of Hillsburg, Ont.

Mrs. E. H. Keating, wife of the ex-Manager of the Toronto Ry., and two daughters, were expected to sail from England Sept. 26, en route to Toronto.

H. Carscallen, K.C., member of the Ontario Legislature for the city of Hamilton, who died Sept. 16, was solicitor for the Toronto, Hamilton and Buffalo Ry.

A. Morrison was presented with a gold chain and locket by the men employed at the Winnipeg roundhouse, on his leaving the service to return to Scotland.

D. D. Mann, Vice-President Canadian Northern Ry., accompanied Earl Grey, Governor-General of Canada, on his recent trip over the Canadian Northern Ry.

C. E. E. Ussher, General Passenger Agent C.P.R., and Mrs. Ussher, sailed from Montreal Sept. 7 by the Empress of Britain, intending to return by the same steamer.

A. J. P. Creelman, Manager of the Imperial Bank, Niagara Falls, Ont., who died at Guelph, Ont., Aug. 27, was a brother of A. R. Creelman, K.C., Chief Solicitor C.P.R.

A. C. Turpin, Travelling Freight and Passenger Agent, Rock Island Lines, with headquarters in Buffalo, who resides in Toronto, has recovered from an attack of typhoid fever.

Owing to the death of C. A. Pipon, A. F. Webster has been elected President of the Toronto Steamship Agents Association. He is continuing as Secretary until the annual meeting.

F. M. Spaidal was the recipient of a testimonial from his Montreal friends, Sept. 7, on leaving the C.P.R. service to become Superintendent Canadian Northern Ontario Ry., Toronto.

Mrs. C. A. E. Carr, wife of the Manager of the Helena Light & Ry. Co., Helena, Montana, and formerly of London, Ont., has been visiting her mother, Mrs. J. S. Williams, Toronto.

The marriage of Miss L. T. Peterson, daughter of P. A. Peterson, Chief Engineer Guelph and Goderich Ry., Goderich, Ont., to F. H. C. Macdonald, of Toronto, is announced to take place early in Nov.

A. S. Hobson, Car Service Agent, Quebec Central Ry., Sherbrooke, Que., has been elected Chairman of the Canadian Car Service Bureau, succeeding G. Collins, Receiver and Manager of the Canada Central Ry., Trenton, Ont.

Miss H. Cockburn, M.D., daughter of the late A. P. Cockburn, of the Muskoka Lakes Navigation and Hotel Co., has resigned the position she has held for five years past,

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G. A. Ringland, formerly of the C.P.R. Atlantic steamship passenger department, was entertained at dinner by the principal steamship agents of the city at the Canada Club, Montreal, Sept. 4, prior to his leaving to take up his residence in Winnipeg.

G. Wilson, assistant to the Freight Traffic Manager, G.T.R., Montreal, was presented with a silver tea and coffee service by the senior officials of the department, Sept. 10, upon the occasion of his marriage to Miss H. Coffey, which took place, at Montreal Sept. 12.

Sir Percy Girouard, who was at one time on the engineering staff of the C.P.R., and later on in charge of railway operations in Egypt for Kitchener's march to Khartoum, and in South Africa during the Boer war, has been appointed Assistant Quartermaster-General of the Imperial army.

Mrs. Broyers, wife of the C.P.R. tie inspector, Ottawa, was killed at Carleton Place, Ont., Sept. 3, the automobile in which she was being struck by a C.P.R. train. Two of the other occupants of the automobile—one of them a daughter of Mrs. Broyers—were rather seriously injured.

D. Hobbs, formerly Customs agent C.P.R. at Montreal, was sentenced to four years' imprisonment at Montreal, for defrauding the Dominion Government of about $60,000. Hobbs absconded in 1905, and was subsequently arrested in New York after having been traced through Great Britain and France.

H. A. K. Drury, Assistant Engineer Board of Railway Commissioners, Ottawa, has been engaged making some investigations in Western Canada. It is not improbable that he will be permanently stationed at Winnipeg, Man., but the matter had not yet been finally decided by the Board when we were last advised.

J. P. Kirkpatrick, who has been appointed Trainmaster G.T.R., Ottawa, was born at Stratford, Ont., July 21, 1874, and entered railway service as water boy on the G.T.R. He worked up through the different positions and was acting as conductor running between Battle Creek, Mich., and Chicago, Ill., at the time of his present appointment

A young man who claims to be the son of wealthy Montreal people, was arrested at Taconia, Wash., Aug. 29, on charges of passing worthless checks in that city and in Portland, Ore. In Tacoma he gave the name of J. W. Whyte, representing himself as a son of W. Whyte, Second Vice-President C.P.R., and at Portland he was J. H. Drinkwater, son of the Secretary of the C.P.R.

G. W. McCaskey, formerly District Passenger Agent Northern Pacific Rd., Toronto, and latterly city passenger and ticket agent N.P. Rd., and city ticket agent Chicago, Burlington and Quincy Rd., St. Paul, Minn., has resigned, and will retire from railway service to reside on his fruit ranch in the Yakima Valley, Washington. His new address is Lillah, Wash. C. P. O'Donnell, heretofore District Passenger Agent at Indianapolis, Ind., succeeds him at St. Paul.

V. T. Bartram, who has been appointed Purchasing Agent Temiskaming and Northern Ry., North Bay, Ont., was born at Ottawa, Ont., Aug. 7, 1877. He entered the transportation service in 1895 as junior stenographer to the General Manager, and held various positions until 1902 when he was appointed chief clerk in the office of the General Assistant Canada Atlantic Ry., Ottawa, and for a year prior to his present appointment was chief clerk in the C.P.R. Purchasing Department, Montreal.

THE NATIONAL TRANSCONTINENTAL RAILWAY COMMISSION

Front row, sitting, left to right C. F. McIsaac, Commissioner; S. N. Parent, Chairman; C. A. Young, Commissioner. Back row, standing, R. Reid, Commissioner; H. D. Lumsden, Chief Engineer.

J. W. N. Johnstone, who has been appointed General Passenger Agent, Reid Newfoundland Co., was born at Campobello, N.B., Oct. 4, 1878, and entered transportation service in the General Freight Department C.P.R. at St. John, N.B. He served in various positions in that department from junior clerk to assistant to the chief clerk, until Feb., 1902, when he entered the service of the Reid Newfoundland Co. as chief clerk to the General Freight Agent, St. John's, which position he held until Aug. 21, 1906, when he received his present appointment.

R. W. McCormick, who has been appointed Assistant Superintendent C.P.R., Smith's Falls, Ont., was born at Liverpool, Eng., Jan. 8, 1867, and entered transportation service in 1879 as operator with the old Canada Central Ry. at Sand Point, Ont., and acted as operator and agent successively at Renfrew, Smith's Falls and Carleton Junction. He was subsequently: Oct., 1896, to Feb., 1897, relieving train dispatcher, Ottawa; Feb., 1897, to Oct., 1901, train dispatcher, Ottawa; Dec., 1901, to Oct., 1903, Chief Train Dispatcher, Ottawa; Oct., 1903, to Aug., 1906, Trainmaster, Ottawa; entire service with Central Canada Ry. or its successor the C.P.R.

R. McGregor, who was recently appointed Trainmaster C.P.R. at Kenora, Ont., entered railway service as telegrapher and station agent on the Intercolonial Ry. in May, 1882, remaining with that line until April, 1884, when he entered the C.P.R. service, acting as operator between Fort William and Winnipeg until Aug., 1885. His subsequent record follows: Aug., 1885, to Nov., 1887, brakeman C.P.R.; Nov., 1887, to Jan., 1902, conductor; Jan., 1902, to Aug., 1902, inspector on standard code of train rules; Aug., 1902, to Feb., 1904, Yard Agent, Fort William, Ont.; Feb., 1904, to Dec., 1904, Trainmaster Rat Portage, Ont.; Dec., 1904, to Aug., 1906, inspector on standard code of train rules, first district Central Division.

TRANSPORTATION APPOINTMENTS.

Alaska Central Rd.—W. B. Poland, Chief Engineer and Manager, has resigned.

Canadian Northern Ry.—G. Campbell, heretofore secretary to E. A. James, Manager C.N.Ry., has been appointed chief clerk to the General Superintendent, Winnipeg.

The fourth district, extending from Kamsack, Sask., to Edmonton, Alta., 548.3 miles, heretofore has been in charge of J. Abbott, Superintendent at Battleford, Sask., and W. J. Pace, Assistant Superintendent at Edmonton, Alta. The title of J. Abbott has been changed to that of Assistant Superintendent. C. Carey, heretofore Trainmaster district 1, Pacific Division C.P.R., Field, B.C., has been appointed Superintendent C.N.R. at Edmonton.

Canadian Pacific Ry. T. Collins, formerly conductor on the London-Chatham run, has been appointed Trainmaster in charge of the movement of trains on the section of the Guelph and Goderich Ry., now being operated from Guelph, Ont. Enginemen and conductors will report to him direct. Office, Elmira, Ont.

R. McGregor has been appointed Trainmaster 1st district, Central Division, at Kenora, Ont.

H. H. Abbott, Assistant General Freight Agent, Western Division, Calgary, Alta., has resigned to enter private employ at Vancouver, B.C.

T. H. Crump has been appointed Acting Trainmaster, district 1, Pacific division, Field, B.C., succeeding C. Carey resigned to join the Canadian Northern Ry. staff.

J. McCreery, heretofore wharf agent, Victoria, B.C., has been appointed local agent Vancouver, B.C., and is succeeded by R. Armstrong.

E. Merchant has been appointed travelling passenger agent, C.P.R., Minneapolis, St. Paul and Sault Ste. Marie Ry., and Duluth, South Shore and Atlantic Ry., for the following territory: Missouri (except St. Louis), Kansas, Arkansas, Indian Territory, Oklahoma, Texas, Louisiana, and New and Old Mexico, except Sonora. Office, Kansas City, Mo.

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Chicago, Rock Island and Pacific Rd.—W. F. Crawford, District Passenger Agent, Buffalo, N.Y., is reported to have resigned.

Grand Trunk Pacific Ry.—A. Brunet, Montreal, has been appointed a Director of the G.T. Pacific Ry., as representative of the Dominion Government. He was one of the first members of the National Transcontinental Ry. Commission.

Grand Trunk Ry.—H. B. Cassidy has been appointed roadmaster 6th and 7th districts, Kingston Junction to York, succeeding J. Graham, transferred. Office, Belleville, Ont

J. Crombie, heretofore night chief dispatcher at London, Ont., has been appointed chief dispatcher, vice W. M. Goodwin, assigned to other duties. C. Forrester has been appointed night chief dispatcher.

The following agents have been appointed. Hyde Park, Ont., C. G. Routledge; Bright, Ont., G. W. McVicar; Shallow Lake, Ont., F. W. Hinton; Aubrey, Que., J. E. Braithwaite; Galetta, Ont., J. Clifford; Ravensworth, Ont., D. T. McIntosh.

Intercolonial Ry.—C. F. Burns of the Treasurer's Department, Moncton, N.B., has been appointed Auditor of Disbursements.

Railway Rolling Stock Notes.

The Intercolonial Ry. has received two Rodger ballast cars from the Dominion Dump Car Co., Montreal.

The Canadian Northern Ry. has received three first-class coaches and two mail and express cars from the Crossen Car Manufacturing Co., Cobourg, Ont.

The Locomotive and Machine Co. of Montreal is delivering three consolidation locomotives a week to the G.T.R., and will continue to do so until the end of the year.

The Bessemer and Barry's Bay Ry. has purchased one locomotive, 12 automatic dump cars, and one flat car. It is considering the question of purchasing additional rolling stock.

The C.P.R. steam motor car which is in operation between Montreal and Vaudreuil, was very fully described in our Aug. issue, pg. 437, and Sept., pg. 515 and 525. Additional illustrations are given on this page and page 595.

We were officially advised Sept. 8, respecting the press reports to the effect that the C.P.R. was making preparations for the building of two more motor cars at the Angus shops this winter, that "the report that we are to build two more motor cars at the present time is incorrect."

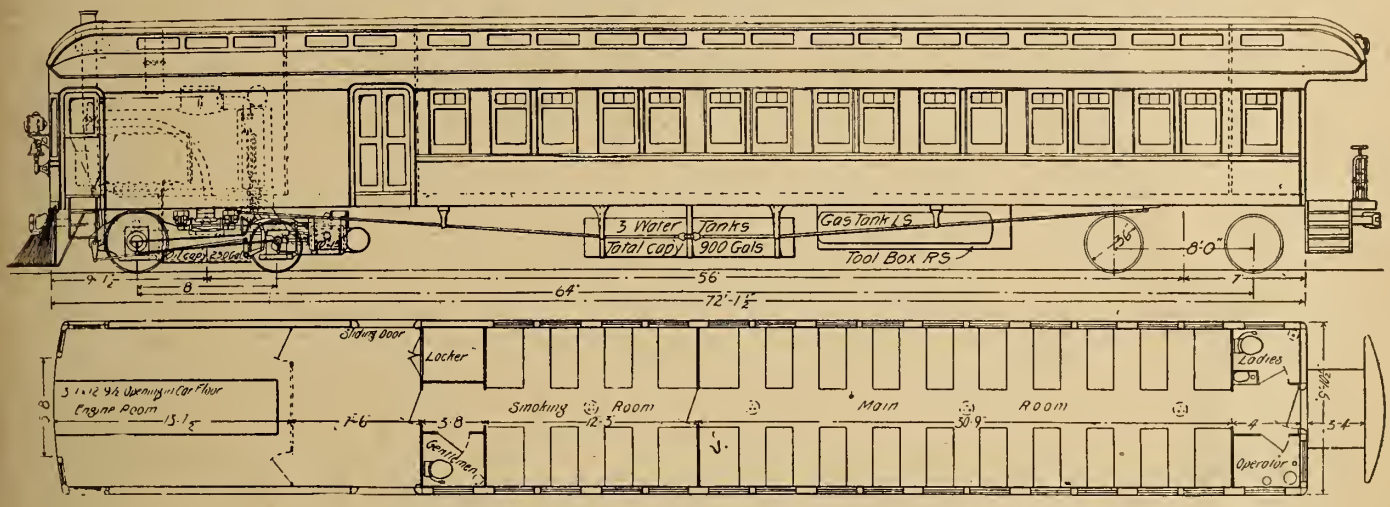
The C.P.R. between Aug. 14 and Sept. 15 received the following rolling stock from its Angus, Montreal, shops: five locomotives, four suburban cars, three baggage cars, 10 baggage and express cars, three observation cars, nine refrigerator cars, 410 box cars, and 170 flat cars. It has also received 10 vans from its Farnham, Que., shops.

The C.P.R. between Aug. 14 and Sept. 15 placed the following orders for rolling stock: 50 locomotives from the Locomotive and Machine Co. of Montreal; 10 freight locomotives, 20 sleeping cars, five dining cars, two parlor cars, 20 colonist cars, 40 first-class cars, 30 suburban cars, 10 baggage and smoking cars, 80 flat cars, 120 box cars, 14 stock cars and 10 ballast cars, from its Angus, Montreal, shops.

Thirty of the 50 locomotives, for which an order has been placed by the C.P.R. with the Locomotive and Machine Co. of Montreal, are of the 10-wheel type, and are to be delivered during Feb., Mar. and April, 1907. The remaining 20 locomotives are to be of the consolidation flat type, and are to be delivered during June and July. They are similar in general dimensions to locomotives of the same classes previously built for the C.P.R. by the company.

The Canadian Northern Ry. has placed the following orders:—With Canadian Locomotive Co., Kingston, Ont., 30 locomotives, 15 of these will be of the 200 class 10 wheels and the other 15 will probably be of the consolidation type; delivery to begin in March, 1907; with the Locomotive & Machine Co. of Montreal, 25 locomotives, 10 of these will be of the 200 class and 15 will probably be of the consolidation type, delivery to begin in Feb., 1907; with the Canada Foundry Co., Toronto, 20 locomotives, type not yet decided; with Rhode, Curry & Co., Amherst, N.S., 1,000 box cars, 30 tons capacity.

The Winnipeg Telegram of Aug. 31 contained an item stating that "The Canadian Northern is adding extensively to the equipment of its rolling stock throughout the west. Six locomotives have been supplied recently by the big Baldwin Locomotive Works of Philadelphia, and orders for 22 more have been placed with the firm. E. S. Currier, of the locomotive works, was in the city yesterday, and had a conference with E. A. James, Manager of the Canadian Northern, regarding the orders." We have been officially informed that the Canadian Northern Ry. has not placed orders for any locomotives with the company named, and we have also been advised that the Baldwin Locomotive Works has not anyone of the name of E. S. Currier upon its staff.



CANADIAN PACIFIC RAILWAY STEAM MOTOR CAR—FLOOR PLAN AND SIDE ELEVATION

New York Central and Hudson River Rd.—H. A. Thomas, District Passenger Agent, Buffalo, N.Y., has resigned.

Northern Pacific Rd.—The office of W. E. Belcher, General Agent Freight Department, has been removed from 75 Yonge St., Toronto, to Majestic Building, Detroit, Mich., his territory being Ontario and Michigan.

Pere Marquette Rd.—C. Montgomery has been appointed Assistant Master Mechanic at St. Thomas, Ont., vice J. McManamy, who is now road foreman of locomotives, with headquarters at Grand Rapids, Mich.

C. C. Koerner, heretofore Acting Auditor of Disbursements, P.M. Rd., and Cincinnati, Hamilton and Dayton Rd., has been appointed Auditor of Disbursements of these roads.

Reid Newfoundland Co.—J. W. N. Johnston, heretofore chief clerk to the General Freight Agent, has been appointed General Passenger Agent of this company's railway and steamship system, succeeding W. E. Hamilton, resigned. Office, St. John's, Nfld.

Temiskaming and Northern Ontario Ry.—V. T. Bartram, heretofore chief clerk in the C.P.R. purchasing department, Montreal, has been appointed Purchasing Agent T. and N.O. Ry. Office, North Bay, Ont. This is a new position.

Toronto Union Station.—F. W. Geissleman, who was appointed baggagemaster in Aug., has resigned, and G. Healy is again in charge.

Canadian Freight Classification Changes.

The Canadian Freight Association has applied to the Board of Railway Commissioners for approval of supplement 8 to freight classification 12, supplement 6. The present classification and the proposed changes follow:

PRESENT	L.C.L.	C.L.	PROPOSED	L.C.L.	C.L.
Page 51. Hardware:—			Hardware:—		
Mica:			Mica:		
Fireproof covering,			Fireproof covering,		
In packages.....	3	.5	In crates or boxes	2	.4
Mica manufac'd			Mica manufact'd,		
In packages.....	1	.4	In crates or boxes	1	.4
Mica pulverized or scrap,			Mica pulverized or scrap,		
In packages.....	2	.5	In boxes or barrels.....	2	.5
Page 54. Hides and skins:—			Hides and skins:—		
Mixed cars hides, skins and tallow	..	5	Eliminate this item, "Mixed cars hides, skins and tallow," and add,		
			Tallow:—		
			In cans or buckets.....	3	.5
			In boxes.....	4	.5
			In barrels, with or without hds.	4	.5

The Dominion Government has passed an order-in-council providing that hereafter railways will only be paid subsidies on the cost of road construction, without including the cost of rolling stock and other equipment.

JUST A FEW OF THE LINES WE CARRY

McCord Malleable Iron Journal Boxes
Fewings Cast Steel Car Replacers
Stewart Ballasting Trip Jacks
Ajax Passenger Car Diaphragms
Pantasote Curtain and Upholstery Materials
Curtain Supply Co.'s Curtains and Fixtures
Passenger Car Vestibule Roller Curtains
Q and C Rail Saws
Q and C Anti-Rail Creepers
Pneumatic Compression Riveters
Chicago Pneumatic Tool Co.'s Pneumatic and Electrical Tools
"Pintsch" Suction Gas Plants
Gibraltar Bumping Posts

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THE BAKER HOT WATER CAR HEATERS

RIVETED STEEL SHELL HEATER

Attention is especially called to our FIRE PROOF HEATERS, with jointless steel casings, made of ¼ in. steel; Fire Proof and Break Proof. Single and Double Coils.

RIVETED STEEL HEATER, with Double Coils. Meets the demand for a smaller and cheaper Heater than our Fire Proofs.

PERFECTED HEATERS, Single and Double Coils.

The "MIGHTY MIDGET" HEATER, 19 inches in diameter. This Heater is especially adapted to ELECTRIC CARS.

STEAM ATTACHMENTS, to circulate the water of the Baker Heater by steam from the locomotive; or will circulate hot water independently of any Heater.

PIPE AND PIPE FITTINGS for Baker Heater work.

Avoid Infringements by ordering direct from the makers.

DOUBLE COIL JOINTLESS FIREPROOF STEEL HEATER

THE WILLIAM C. BAKER

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Manufacturers of Car Wheels and Railway Castings of every kind.

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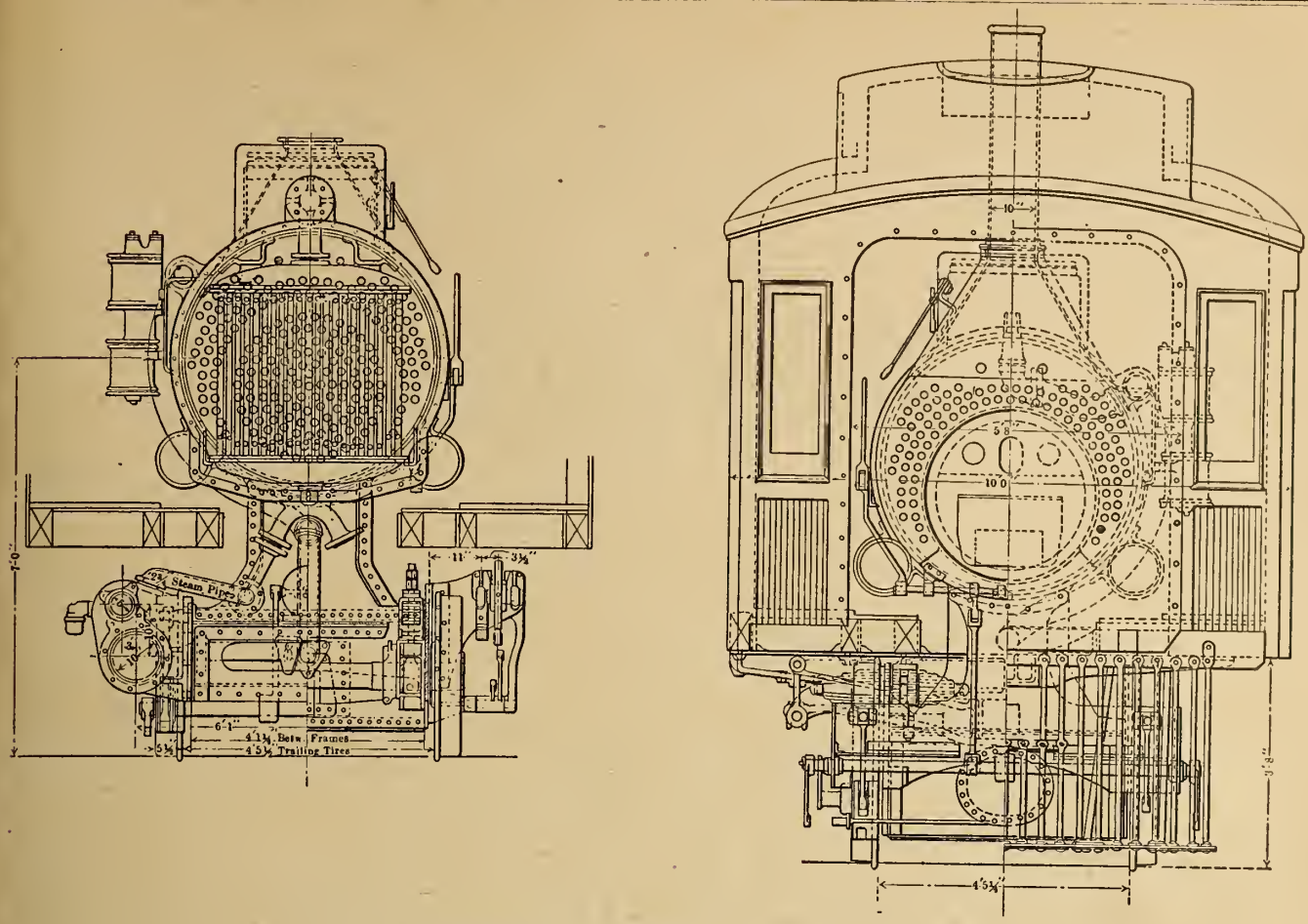
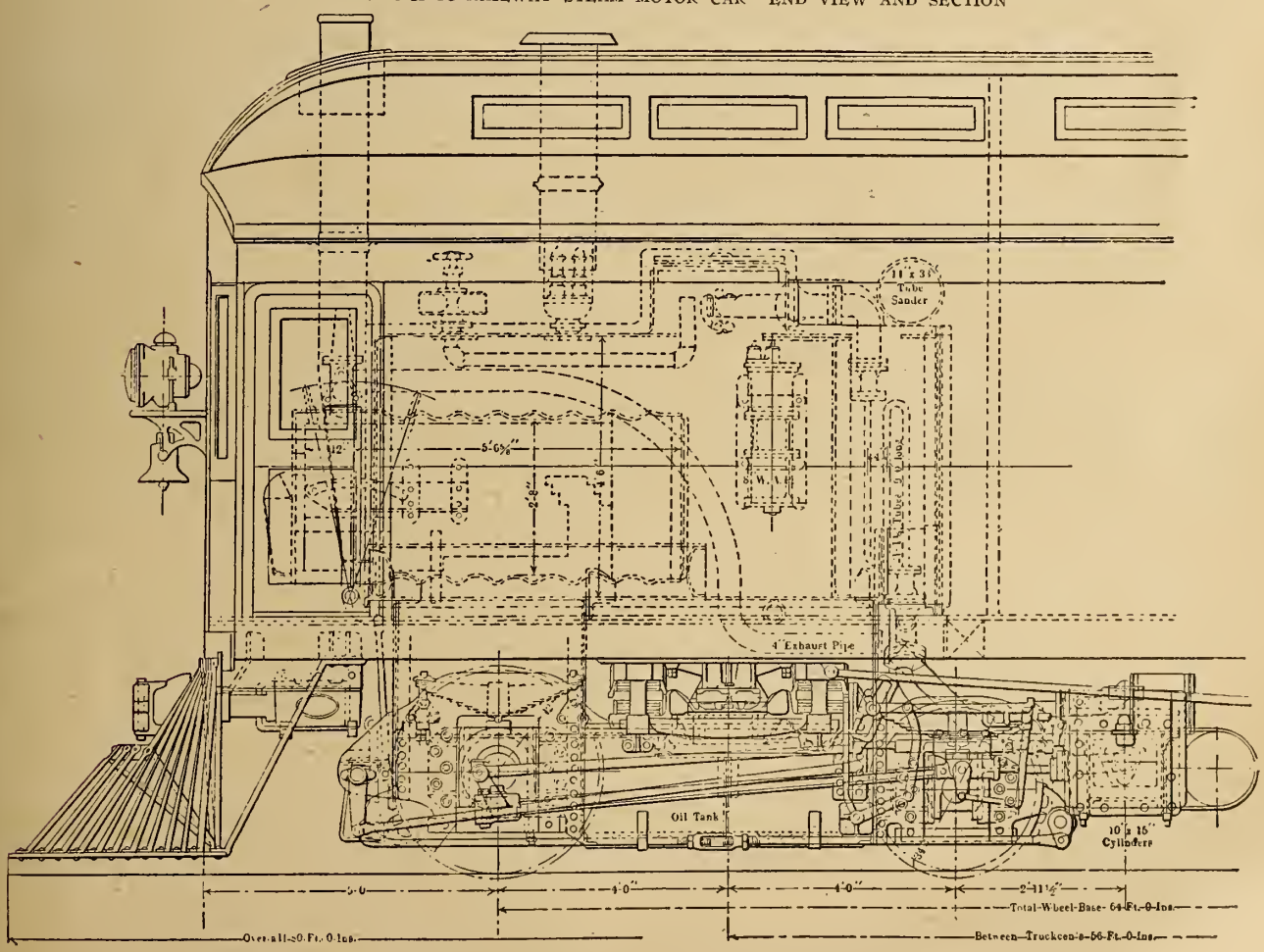


CANADIAN PACIFIC RAILWAY STEAM MOTOR CAR—END VIEW AND SECTION



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THE ESTABLISHED 1854 INCORPORATED 1881

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Machinists' Hammers
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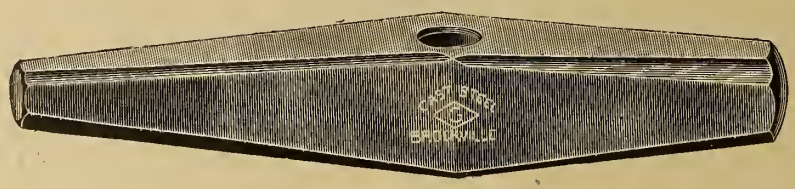

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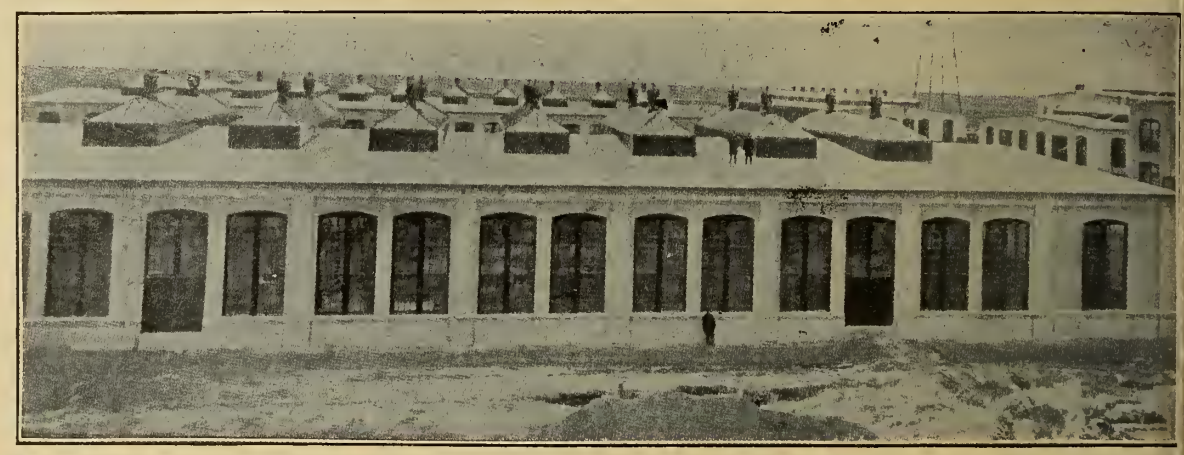
Canadian Pacific Railway New Shops, Winnipeg, Man.

"Our Improved" Skylights throughout.

Size of Skylights 12 ft. 6 in. x 50 ft.



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STEAM SHOVELS

We build shovels in sizes from 22 to 110 tons, with dipper capacity of ¾ to 4½ cubic yards. Our new design represents the accumulated experience of many years in steam shovel building. Some of the features that we would call attention to are the use of cut gears, swinging jack arms, and the heavy construction of car body. Write us and describe your work, and get our specifications and proposition on your requirements.

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Canadian Ticket Agents' Association.

Secretary De la Hooke has finally arranged the itinerary for the Association's annual outing with his usual completeness of detail. The arrangements are as follows: Wednesday, Nov. 7.—Assemble at Detroit, Mich., special train will leave Union Station at 7 p.m. Thursday, Nov. 8.—Breakfast at Union Station, St. Louis; lunch at Cairo, Ill.; supper at Corinth. Friday, Nov. 9.—Arrive at Mobile, Ala., in time for breakfast, Hotels Cawthon and Bienville. Saturday, Nov. 10.—Annual meeting at Hotel Cawthon, 10 a.m. Sunday, Nov. 11.—Leave Mobile about 10 a.m. Lunch at Magnolia Hotel, Pass Christian, and arrive at New Orleans about 5 p.m. Put up at the St. Charles Hotel. Monday, Nov. 12.—At New Orleans. Tuesday, Nov. 13.—Leave New Orleans, 9 p.m. Wednesday, Nov. 14.—Breakfast at Birmingham, Ala., about 7 a.m. Arrive at Chattanooga about 11.30 a.m. Lunch at station. Go by rapid transit cars to Chicamauga Park, there take carriages for the drive through the park. Dinner at the inn on the top of Lookout Mountain. Leave Chattanooga 9 p.m. Thursday, Nov. 15.—Arrive Cincinnati about 7 a.m. Leave about 10 p.m. Friday, Nov. 16.—Arrive at Detroit. Breakfast at Union Station. Disperse.

The special train will be composed of sleeping cars and will run over the following lines: Detroit to St. Louis, Wabash Rd.; St. Louis to Mobile, Mobile and Ohio Rd.; Mobile to New Orleans, Louisville and Nashville Rd.; New Orleans to Cincinnati, Queen and Crescent route; Cincinnati to Toledo, Cincinnati, Hamilton and Dayton Rd.; Toledo to Detroit, Pere Marquette Rd. During the portion of the trip over the Queen and Crescent route the party will be entirely the guests of the railway company, which will provide the meals, the entertainment at Chattanooga, etc. Arrangements for the entertainment of the party at Mobile and New Orleans are being made.

Board of Railway Commissioners.

The Board of Railway Commissioners concluded its investigation into the charges of alleged excessive freight rates on the White Pass and Yukon Ry., at Dawson, Yukon, Aug. 22, and left for Vancouver, B.C. on the following day. The Commissioners looked into some matters at Vancouver before starting on their return journey to Ottawa. On Sept. 4 the Commissioners sat at High River, Alta., to consider the objection of the town to closing up a street by the C.P.R., and on Sept. 5 and 6 sat at Calgary, for the purpose of hearing the application to declare the legal right of the city to the crossing of the C.P.R. on First St. east, First St., Seventh, Eighth, Ninth and Tenth Streets west. At Edmonton, Sept. 10, evidence was taken in regard to railway crossings and other matters, and consideration given to a representation from the Department of Agriculture regarding fire guards and other methods of protection against fire along the lines of railway. Subsequently the Commissioners made a trip over the C P.R. Crow's Nest Pass line, and returned to Calgary, Sept. 17, when the matters connected with the street crossings were again taken up. Regina, Sask., was reached Sept. 19, when the question of the construction of a union station there was brought forward by the City Council and the Board of Trade. The Commissioners spent some time at Winnipeg and Fort William, before returning to Ottawa, where decisions upon the various matters investigated will be given out.

The first train of the Canadian Northern Ontario Ry., consisting of freight cars loaded with lumber, arrived in Toronto Sept. 1. The company expects to start its regular freight and passenger service, Oct. 10.

A C.P.P. Inspection Trip.

Sir Thos. G. Shaughnessy, President C.P.R., left Montreal, Sept. 8, on his annual trip of inspection over the company's western lines. He was accompanied on the special train by R. B. Angus, Senator Forget, Montreal; E. B. Osler, M.P., and W. D. Matthews, Toronto; directors of the company, H. Joseph, Montreal, and Colonel Vincent Hill, M.V.O., General Manager South-Eastern and Chatham Ry., and a member of the War Railway Council of London, England. At Fort William, Ont., he was met by W. Whyte, Second Vice-President and other officials, and on the trip to Winnipeg looked over the second track work in progress. Upon reaching Winnipeg the President said he expected 100 miles of the second track to be in operation this fall; the work was very costly but immense benefits would accrue to the company from the increased accommodation. The party left Winnipeg Sept. 11 and the same day reached Brandon, Man., where the question of the provision of a union station was discussed with the Mayor. The C.P.R., said Sir Thomas, was prepared to give the Great Northern Ry. union station facilities and running rights through their yards for passenger and freight traffic. Regina was reached Sept. 12, and on the following day the union station question was discussed. Sir Thomas said the C.P.R. possessed all the facilities it required in Regina, and was at present the only company bringing traffic into the city; the project could not be entertained by the C.P.R. Mr. Whyte returned to Winnipeg from Regina, Sept. 13. Calgary was reached Sept. 14, and Banff the following day. The party reached Vancouver Sept. 19, and subsequently went on to Victoria, where the matter of the completion of the hotel there was discussed. Some points in the Crow's Nest Pass country were stopped at on the return journey, and a day was spent in Calgary, Sept. 22, and a couple of days in Winnipeg. The special train reached Montreal again Sept. 28.

ELECTRIC RAILWAYS.

Projects, Construction and Betterments.

Brantford and Erie Ry.—At a meeting of the directors in Brantford, Sept. 7, the matter of an early start of construction was under discussion. The proposals of the company to construct a line from Brantford through Waterford and Simcoe to Port Dover, Ont., are said to be under consideration by New York capitalists. (June, 1905, pg. 259.)

Brantford and Hamilton Electric Ry.—The contract let to F. H. Dickenson, Hamilton, includes the grading, trestle work and the culverts on the line between Hamilton and Brantford, Ont., about 22 miles. A contract has also been let for work on the line to Nicholson and Riley, St. Catharines, Ont. A large force of men is at work on the route. The officers of the company are: President, General Taylor, Indianapolis, Ind.; Vice-President, J. W. Nesbitt, Hamilton; Chief Engineer, I. K. Pierson. (Sept., pg. 547.)

The British Columbia Electric Ry. is providing for additional power by adding the following equipment: One generator 2,000 h.p., 3 phase, 7,200 alternations, 200 revolutions a minute, engine type for direct connection with the water wheel; one rotary converter 1,350 h.p., 550 volts, 3 phase, 7,200 alternations, 400 revolutions a minute; eight air blast transformers, each 733 h.p., 2,200 volts to 24,200 volts, 7,200 alternations. Also necessary switchboards and regulating and controlling devices. The whole of the order was manufactured by the Canadian Westinghouse Co.

An extraordinary meeting of the shareholders of the Chilliwack Power and Light Co. was held Sept. 12, for the purpose of approving a resolution selling its franchises and charter to the Vancouver Power Co., a subsidiary company of the B.C. Electric Ry. (Sept., pg. 547.)

Buffalo, Toronto and Niagara Ry.—An exclusive right of way has been granted through the township by the Grantham Township Council. The company proposes to construct a line from St. Catharines to Niagara-on-the-Lake, Ont., at an early date, in connection with its other lines. Plans have been approved by the Board of Railway Commissioners for a line from Fort Erie to Niagara-on-the-Lake, with branches to Port Colborne, Welland and St. Catharines. A company with this title was incorporated by an act passed last session of the Dominion Parliament, with the necessary powers to construct and operate such a line of railway.

Hamilton, Waterloo and Guelph Ry.—A survey party in charge of T. E. Hillman started from Hamilton, Ont., Sept. 17, to locate this line. Three routes have been submitted to the City Engineer for the line to enter the city. (Aug., pg. 477.)

Electric Ry. Finance, Meetings, Etc.

Montreal Park and Island Ry.—The annual meeting called for Sept. 19 was adjourned to a future unfixed date.

Montreal Street Ry.—Passenger earnings for Aug., $293,401.69; miscellaneous earnings, $6,876.67; total earnings, $300,278.36, against $262,009.03 for Aug., 1905. Operating expenses, $158,415.38; city percentage on earnings, $28,337.71; interest on bonds and loans, $16,077.28; contingent fund for renewals, $15,013.92; surplus, $82,433.37, against $136,183.83 operating expenses; $23,082.90 city percentage; $12,386.26 interest on bonds and loans; no contingent fund, and $90,341.04 surplus, for Aug., 1905. Total earnings for 11 months ended Aug. 31, $2,794,947.90; net earnings, $1,108,178.71; surplus, $673,838.34, against $2,443,823.66 total earnings; $912,790.23 net earnings, $645,401.34 surplus for same period 1904–05. Interest on Montreal Park and Island Ry. bonds held by the company not included.

Southwestern Traction Co.—Local reports state that negotiations are in progress for the purchase of the company's line and franchise by the London Street Ry. Co. Officers of the latter company state that there is nothing in the report.

Toronto Ry.—Car earnings for Aug., $285,836.46 against $250,830.42 for Aug., 1905.

Windsor and Tecumseh Ry.—Local press reports state that the charter and franchises of the W. and T. Ry. have been acquired by the Sandwich, Windsor and Amherstburg Ry. Co., which in turn is owned by the Detroit United Ry. We have been advised that there is nothing "official" in the report.

Electric Railway Notes.

The London Street Ry. will place at an early date an order for five new single-truck cars, for delivery in the spring.

The Metropolitan Ry., running from Toronto north, has ceased to issue excursion fares on its line, and charges a uniform two cents a mile rate all over.

The American Street and Interurban Railway Associations, and the various branch societies in connection therewith, will meet at Columbus, Ohio, Oct. 15 to 19.

G. C. Cunningham, formerly Manager of the Montreal Street Ry., and now Manager of the Central London Ry., in England, is visiting Montreal and Toronto after an absence of ten years.

RUSSELL INSPECTION CAR NO. 12

"THE CAR THAT GOES"

Has four wheels of equal size with engine midway between the rails.
Can be turned or removed from the track easily and quickly by one man, handling from the rear.
Weighs only 300 lbs. yet is strong and durable.
Can be readily lifted and carried by two men.
Can be run at any speed required up to 30 miles per hour.
Can be quickly taken apart for storage in baggage car.
Carries comfortably three passengers and luggage.
Is guaranteed to take any railway grade with ease.
It is just the simple and easily operated car that RAILWAY MEN have been looking for.

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MONTREAL and TORONTO
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WRITE US FOR PARTICULARS AND PRICES.

General Offices: 43 Exchange Place, NEW YORK

An order has been issued by the Ontario Railway and Municipal Board approving of the pilot or cowcatcher in use on the Metropolitan Ry., in place of the fender which the act requires shall be used on electric railways.

Alex. Smith, Mechanical Superintendent of the Toronto and York Radial Ry., has been approved by the Ontario Railway and Municipal Board as an examiner of motormen for the said railway under the terms of Ontario Railway Act, 1906, Sec. 221.

The directors of the Guelph, Ont., Radial Ry. have increased the pay of its employes a cent an hour for first, second and third year men, the rate of pay now being 15, 16 and 17c. an hour respectively. The rate for new men serving up to six months only will be 14c. an hour.

J. E. Stephenson, General Passenger and Freight Agent, International Ry., Buffalo, N.Y., having resigned owing to ill-health, Geo. Chambers has been appointed General Agent, assuming the responsibility of General Passenger and Freight Agent, and such other duties as may be assigned to him.

The Hamilton City Council has filed a petition with the Ontario Railway and Municipal Board, complaining generally of the track, roadbed, cars and general equipment of the Hamilton Street Ry. and asking for an investigation. Prior to the receipt of this the Board had appointed J. F. H. Wyse, electrical engineer, Toronto, to inspect and report upon receipt of a petition signed by 200 residents of Hamilton.

The Ontario Railway and Municipal Board has declined to grant leave to J. Brown, of Toronto Junction, to bring an action against the Toronto Ry. Co. to recover penalties for running its cars on Sundays in Toronto Junction. The amount of the penalties alleged as accruing at the time the writ was issued was about $40,000. An application has been made on behalf of the Toronto Junction town council to the Board for an order to compel the running of the cars.

The question of reporting accidents to the Ontario Railway and Municipal Board, about which there was some friction, has been adjusted after a conference between the Board and representatives of the Toronto Ry. The Board insisted on compliance with the regulations as published, which provide that such reports shall be privileged. The names of witnesses to accidents are not to be disclosed in the reports, but the company undertook to furnish them to the Board whenever required for any purpose whatever. There is a doubt as to the Board's right to the names of witnesses, and when given they will be kept secret by the Board.

NOTICE IS HEREBY GIVEN that a Special General Meeting of the Shareholders of The Canadian Northern Quebec Railway Company will be held on Monday, the 22nd day of October, 1906, at the hour of 12 o'clock noon, at the Head Office of the Company, 1 Toronto Street, Toronto, to consider, and, if thought expedient, to authorize the Board of Directors to make an issue of Perpetual Debenture Stock, secured by mortgage to trustees, upon the whole or such parts of the Company's properties and undertakings, etc., as the Board may think fit; the said Debenture Stock to bear interest at four per cent. per annum, payable half-yearly; the amount thereof to be limited to an amount not exceeding the amount sufficient to take the place of, and to be exchanged for, bonds of the authorized issues of Great Northern Railroad of Canada, The Chateauguay & Northern Railway Company, and The Quebec, New Brunswick & Nova Scotia Railway Company, the predecessors by amalgamation of this Company, and an amount represented by not exceeding $20,000 per mile of railway hereafter constructed or acquired by the Company; the terms of the issue and of the mortgage securing the said Debenture Stock to be such as the Board of Directors may think best; the payment of the said Debenture Stock to be guaranteed by The Canadian Northern Railway Company, in accordance with an agreement to be made with that Company.

By order of the Board.

W. H. MOORE,
Secretary The Canadian Northern Quebec Railway Company.

September 20, 1906.

Halifax Electric Tramway Co.'s Plant.

At the last meeting of the Nova Scotia Mining Institute, P. A. Freeman, Chief Engineer of the H.E.T. Co., read a paper on its new plant, from which the following are extracts:

At times it is somewhat difficult for an engineer to decide upon the type of boiler to use, and in every case the choice should depend upon the nature of the work demanded whether it is better to use water tube, externally or internally fired, etc. Many plants are able to use with good economy a return tubular boiler, and the selection of a water tube boiler would be of no advantage in comparison with the increased first cost. For railway work, and for that where the demand for steam is liable to increase rapidly during certain hours of the day, the water tube boiler is by far the best. With a first-class water tube boiler, a fireman can carry for a certain length of time from 50 per cent. to 100 per cent. above the rating of the boiler. In our plant at the Tramway station we have seven 250 h.p. Babcock & Wilcox boilers. Four of the boilers were purchased in 1902 and 1903 for our new plant, and each of the four has also connected to it a B. & W. patent superheater containing about 330 sq. ft., making a total heating surface of 3,150 sq. ft., and making a total horse power for each of the four 280 h.p. The other three boilers were used in our old plant previous to the invention of this type of superheater. Boiler pressure carried averages 150 lbs.; temperature saturated equals 370.28+100° superheat, or a total temperature equal to 470.28° Fah. Saturated steam at 500 lbs. pressure equals only 466.57° Fah. Before any condensation takes place at the cylinders the steam must lose all its superheat, and losses from condensation range all the way from 3 to 20%.

We use a regulator on our steam main to fan engines that regulates the steam pressure within 5 lbs. Also from shaft of air fan we operate our stoker feed attachment. When steam drops the regulator admits more steam to blower engine. When steam rises to 150 lbs. the regulator cuts off steam, and admits less air and coal to furnace.

We have installed two outside packed plunger feed pumps 4 in. suction and 3 in. discharge. We take the feed water from an open heater at a temperature from 210 to 212° Fah. possible. The exhausts from our feed pumps, stokers, and drips from our car house and office heating systems also discharge into open heater. The open heater receives its supply of water through a regulating valve from induction heaters on each of the main engine exhausts piping. The average degree in temperature received from the induction heaters equals 90° Fah. above city water temperature. We are connected to two 6 in. city water mains.

ENGINE ROOM.—We have installed there engines, 18 in. x 36 in. x 32 in. x 150 revolutions per minute. Style, horizontal, cross compound, condensing, direct connected. Duties or guarantee:

Steam consumption at	450 h.p.	13 9-10 lbs.	steam
" " "	675 "	12 8-10 lbs.	"
" " "	900 "	13 25-100 lbs.	"

Horse power at 150 lbs. steam, 28% cut-off, 900 h.p.; at maximum cut-off, corresponding indicated horse power, 1,350. Friction of unit, no load, at 150 rev., 61 h.p.

GENERATORS.—On engine shafts, one C. G.. E. alternating generator; type A. T. B. Class 48 fields, kilowatts 600; rev. 150; amps. 158, good for 50% overload for one hour.

RAILWAY.—Three induction motors. Motor end; Type I, class 2: h.p., 330; 514 rev.; cycles, 60; volts, 2,200; amps., 85; speed, 514. Direct current end: type M.P., class 6 fields; horse power, 225; rev., 514; form A; volts, no load, 325; full load, 575; amps., 391. Also one synchronous set used for motor circuit, elevators, etc. Motor end: C.G.E. Co. make, voltage, 2,300; kilowatts, 300; speed, 600; coupled to a direct current generator, made over by cutting off ⅓ of its base, and shortening and placing a coupling on its shaft. This direct current armature, operated as a belted unit to a 13 in. x 24 in. x 24 in. x 150 rev. per minute. Robb engine, 1896 to 1902. Two exciter induction sets C. G. E. Co. make. One direct-connected, steam-driven exciter set, C. G. E. Co. engine, made by Robb Engineering Co., Amherst. Four type R., form A., 100 light series arc oil transformers, prim. voltage, 2,200; secondary voltage 75, amp. 7.5, for street arc lighting, cycles 60. Also one 50 series arc oil transformer, same as above. We use the latter for commercial arc lighting. 6.5 amps. and 75 volts.

OILING SYSTEM.—We use one receiving tank, one 200 gall. capacity oil filter, and two house hot water tanks galv. We use the latter as pressure tanks.

METHOD OF OPERATING.—All dirty oil and water flows into receiving tank from engine room floor. Also mechanically arranged that on this basis, as water and oil weigh 1-9 less per measure than water, and that by placing a drip water pipe 4 in. from bottom of receiving tank, and pipe it up to 8 in. from top of tank, then place an overflow oil pipe 6 in. from top of tank, so that the oil overflows to the oil filter and the water goes to the sewer. On the bottom of the pressure tanks we have connected a city water pipe that gives about 35 lbs. pressure on our oiling system. The method used to take oil from oil filter or oil barrel into pressure tank: we have connected to each engine a vertical jet condenser, from condensers a 1 in. pipe main to pressure tanks. To operate we close the city water supply, open valve on filter or barrel, open the valve to condenser. The vacuum takes water out of tank and the oil takes the place of the water at no cost for power. Each tank has a water gauge glass.

Kilowatts per imperial gallon engine and cylinder oils, 1902, 1903, 1904 and 1905: engine and cylinder oils used each year:

1902		1903		1904		1905	
Eng.	Cyl.	Eng.	Cyl.	Eng.	Cyl.	Eng.	Cyl.
2247	1024	1140	676	686	622	413	570

TOTAL KILOWATTS

1902	1903	1904	1905
4,908,432	5,393,248	6,008,290	6,084,600

KILOWATTS PER IMPERIAL GALLON

	1902	1903	1904	1905
Eng.	2184.44	4750.1	8758.32	14490
Cyl.	4793.3	7977.02	9659.75	10674

We have on engine room floor two oil waste presses made of 12 in. pipe, about 24 in. long, with 1¾ in. screw, five threads to the inch, the lever 12 in. long from its centre. In the old plant we had to press waste by hand to extract the oil. We saved the waste for two months after extracting oil by hand. Then we placed it in the press. The press saved one barrel of oil. Previous to purchasing the waste press we used five lbs. waste per day. Since then only one lb. per day.

OPERATING AND CARE OF BOILERS.—In these days of keen competition it is absolutely necessary to take every precaution for reducing operating expenses, of which the coal pile represents a large percentage. At the tramway plant it represents 62.5% at the buss-bar. The best of boilers will not take care of themselves, and will gener-

(*Continued on page 603.*)

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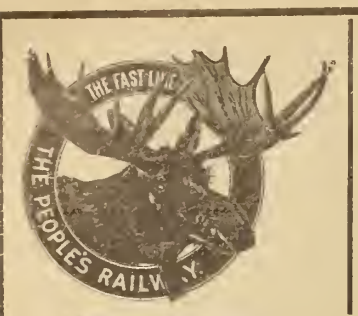

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HEAD OFFICE AND WORKS: **SYDNEY, CAPE BRETON, CANADA**

Halifax Electric Tramway Co.'s Plant.

(*Continued from page 599.*)

ate steam according to the manner in which they are treated. Shovelling coal into the furnace and keeping a sufficient supply of water in a boiler does not constitute the entire duties of a fireman. He must shovel coal and feed water to the boiler intelligently, and study the peculiarities of the steaming properties of his boilers and coal. I might add that no two boilers of the same make, with exactly the same handling, will give the same results.

The proper maintenance of boilers demand that they should be shut down and examined inside and out thoroughly at least every nine weeks. We shut down every five weeks. The boiler should be thoroughly blown out and cleaned, even if solvents are to be used for the prevention of scale. In our plant we use the following method for preventing scale and for cleaning the boilers: The feed is supplied to the boilers through the 6 in. city water mains to the induction heater, then to the open heater. This has already been described. When the boiler is taken off the line for cleaning and general overhauling, we pump it full of water in which about 20 lbs. of sal-soda have been dissolved, while it is still under pressure and the boiler stop valve closed. It is then allowed to remain 48 hours, when, by this time, the steam pressure has fallen. The blow-off is opened and the boiler emptied. It would seem at first that this would be sufficient to thoroughly clean the boiler, but it is not so. If the feed water valve is slightly opened and the water allowed to flow slowly through the boiler, it will then be thoroughly cleaned, as this slow filtration through the boiler seems to bring with it all the dirt, scale, etc., which was not carried away by blowing down. Also particular care should be taken that the feed valves of the other boilers are closed during the time we are filling the boiler with the sal-soda solution. Otherwise brass engine fittings, etc., will be seriously affected.

Safety valves are the most delicate part of a boiler, and demand constant care and watching, if we wish them to work fairly accurately. My experience with spring safety valves has led me to adopt the rule that all our safety valves shall be partially lifted from off their seats, once at least every 24 hours. If this is not done, I find that a so-called skin forms on spring and seat, and if the valve is not lifted oftener than once a week, it will take considerably more pressure to lift it than for which it was originally set. Another very serious trouble with safety valves, which often occurs, is the loosening of the check nut, and if this is not attended to immediately upon the indication of such trouble, the steam pressure will drop and all steam escape into the atmosphere, shutting down the plant. Although it at first appears difficult to the engineer or fireman to tighten the nut and set the valve properly, nevertheless, if he understands his type of valve thoroughly, he can accomplish it with his monkey wrench, hammer and chisel, in a very short space of time, with perfect safety to himself and plant. If the valve should commence to blow off and steam pressure drop more than 5 lbs., or if the steam pressure should at any time drop more than proper on account of the safety valve blowing off, the engineer or fireman should at once assume that the valve is out of order, and must be attended to immediately. If check nut is loose, it can be remedied by turning the valve spindle to the right until the steam stops escaping. Then the cap may be removed and the check nut tightened without further difficulty. The boiler pressure should be increased to the same point at which the valve blew off, and beyond in order to make certain that the valve will blow off at the proper pressure. This point can be easily obtained by slightly turning the valve in the proper direction.

HALIFAX ELECTRIC TRAMWAY CO.

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The above method of handling the safety valve is that commonly used in ordinary practice, but for close regulation the cushion seat should also be raised or lowered according to the range within which it is desired to have the safety valve act. Under no conditions should the safety valve spindle or any of its parts be struck or hammered in order to make it close, as this is a very dangerous practice and is liable to cause more or less serious explosions. This latter precaution of mine may seem to be hardly necessary, yet, in my own experience, I have seen an engineer strike down on the spindle with a piece of 6 x 6 wood with the idea of causing the valve to close. Although at this time of which I speak no serious results occurred, it might have caused great danger the very next time it was tried.

My experience has led me to believe that boiler explosions are caused by careless and unintelligent attention to the supply of water, and not at all times through inherent defects in the boiler. The gauge cocks should be tried regularly in order to detect any false indications of water in the glass. False indication of water is not by any means an uncommon occurrence. The sudden breaking of a gauge glass causes the valves of the column to be closed, and on replacing the glass, the bottom valve is opened and the upper one forgotten. The glass, under such conditions, will show false water, as the water will remain in the glass until the boiler is emptied, held in position by the vacuum in the top of glass. This very case has occurred in our own plant, but any dangerous results were averted by prompt action. In connection with this I recall an answer given by a chief engineer to a board of examiners. He was asked what he would do if, on entering a boiler room, he discovered no indication of water in his boiler. He said he would make sure the water was shut off, close all drafts and open his furnace door. On being asked what he would do next, he replied that he would leave the building and watch it from a safe distance.

Pumps are usually given the least care, worked the hardest of the equipment, and at the same time play the most important part in a station. They should be given the same careful attention as the steam engine. We make it a practice to completely overhaul our pumps once a week, in order to detect any faults that may exist or are liable to occur. Special care should be paid to the water plunger and valves. Valves should be used which are made to withstand the temperature of the water which passes through them. Disregard of this may cause serious trouble. In our plant we use brass valves in feed water pump. We use jet condensers, which give an increased economy of 20 per cent. Surface condensers should not be used if possible, on account of the deteriorating effect of the oil upon the tubes of the boilers. And if the water is not to be used again in the boilers, then there is no gain, but a loss in installing surface condensers, on account of increased first cost and increased cost in running. Heaters and condensers demand the same careful attention as pumps.

ENGINES.—The selection of an engine demands the same careful consideration as boilers. Whether high or low pressure; single or compound; high or low speed; steam jacketed, etc.; for heavy and variable loads, the compound engine is generally accepted. Large, low speed, compound engines with wide expansion are generally accepted as more efficient than single cylinder engines. This is clearly shown by the results of tests on the compound engine. When this engine was run as a single engine it used 24 lbs. steam per i h.p., and when run as a compound engine with the same load steam pressure, and under the same general conditions, it only used 20 lbs. of steam per h.p., thus demonstrating that the compound engine was 30% more efficient than the single engine. Especially are compound engines more efficient with high steam pressures.

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about double the usual weight, and with all parts in such proportions as will give perfect work under the most trying conditions. Governors for this work must be especially good, and must respond to sudden changes of load, and continue to regulate closely under all circumstances. The variable cut-off on low pressure cylinder is also a strong point in such engines for this work, as it ensures quick work, quick regulation, and high economy. Under variable loads, the regulation of our Corliss engines is within 3%, giving the greatest satisfaction, and up to the present three of this type of engine have been in constant use on our total output, railway and lighting since Sept., 1902, when our first Corliss unit started. Nov., Dec., Jan., and Feb. we have to run our three engines every evening except Sunday. Each engine runs 30 hours alternate, and the day load varies from ¼ load to 50% overload on account of the variable railroad load.

An engine should be indicated every three months on account of the wear and tear of the parts, and the variation in the valve rod connections. In our old plant our engines were first set by hand, and then by the use of the indicator, a saving of 19% was shown.

On taking charge of our old plant Sept., 1895, the boilers were carrying nearly their capacity. By indicating the engines and setting valves properly we were able to increase our engine load 50%, and only increased our boiler load 10 per cent. All this simply goes to show that the indicator should be used freely and intelligently in order to effect the greatest economy.

The profitable use of steam jackets is a much discussed question, and many engineers disagree. My experience with nine 1,000 h.p. engines, steam cylinder and head jacketed engines, has led me to doubt the advisability of using the steam jacket on the cylinder barrel. I advise jacketing the cylinder heads. In my opinion the extra cost of maintaining the extra steam piping and the liability of damage to the cylinders more than counterbalance the saving obtained by steam jacketing the barrel of cylinder. If an engine cylinder has cooled down, the greatest care must be taken in re-heating the cylinder through the use of the steam jacket, or else a cracked cylinder will result, on account of the unequal expansion. Such an accident has occurred under my own observation, and it has not made me very enthusiastic to use steam jackets on barrel of cylinders. But I strongly advise steam jacketing the cylinder heads.

Winnipeg Electric Railway Company.

In connection with the issue of first refunding mortgage 30 year 5% gold sinking fund bonds dated Jan. 2, 1905, and due Jan. 1, 1935, the following particulars have been given by Osler & Hammond, Toronto, in a circular:

CAPITAL STOCK

Paid-up	$4,000,000
Now being issued at par	500,000
	$4,500,000

BONDED DEBT

Issued	$4,000,000
Held in escrow to retire bonds of Winnipeg Electric Street Ry	1,000,000
Total bonded debt authorized	$5,000,000

The Winnipeg Electric Ry. was organized in 1904, and was formed by a merger and consolidation of the Winnipeg Electric St. Ry. Co. and the Winnipeg General Power Co. The company controls all the street railway, gas, electric power and commercial electric lighting business of Winnipeg and St. Boniface, having a combined population of about 110,000. The street railway franchise for Winnipeg is exclusive until 1927, and for St. Boniface until 1943, when the municipalities must either take over the street railway properties at a price to be fixed by arbitration or extend the franchises. In addition to the street railway, electric lighting and power the company also supplies all the gas to the city, and has recently erected a coal gas plant of the most modern kind. The company's gas and electric lighting franchises are perpetual, but not exclusive.

HALIFAX ELECTRIC TRAMWAY CO.
View from south-east end of power house.

The Winnipeg Electric Ry. Co. has approximately 32 miles of track in Winnipeg. It owns the capital stock of the Suburban Rapid Transit Co., which has 9½ miles of track. It owns the control of the Winnipeg, Selkirk & Lake Winnipeg Ry. from Winnipeg to Selkirk, 22 miles; this line is now operated by steam, but is being electrified. It owns 1½ miles of railway in St. Boniface. It has franchises in the municipality of Kildonan, and on both sides of the river in the municipality of St. Vital.

The company has just completed and has in successful operation its new water power plant situated on the Winnipeg River about 65 miles from Winnipeg. The plant at the power house is now capable of development of 10,000 h.p., and by Oct. will be completed to the extent of 20,000 h.p.; and the site for the power is capable of being further developed so that an additional 25,000 or 30,000 h.p. can be generated. The company is already delivering in Winnipeg 8,000 h.p., and expects in a few weeks to cease operating its steam plant except as an auxiliary power. New contracts for the supply of over 5,000 h.p. to the city and for the operation of manufacturing plants, have been entered into. About $4,000,000 has been spent by the company in the development of its water power.

EARNINGS FOR CALENDAR YEARS

	Gross	Operating Expenses	Net
1901	$309,399.87	$173,218.04	$136,181.33
1902	397,091.87	210,984.86	186,107.01
1903	568,225.84	278,403.25	289,822.59
1904	831,736.58	427,754.20	403,982.38
1905	1,119,768.85	575,747.29	544,021.56

The gross earnings for the six months ended June 30, 1906, were about $626,484, as compared with $498,438 for the same period in 1905, an increase of about 25%. The net earnings for the same period in 1906 were about $305,550, as compared with $223,160 in 1905, an increase of about 37%. The net earnings for 1905 were about four times what they were in 1901, and the company is now earning more than twice the interest upon its total bonded debt, and this notwithstanding the fact that it has not yet derived any benefit from its large expenditure for water power. It is estimated that the using of water power instead of steam power will effect a saving to the company of from $240,000 to $250,000 a year, and it has enabled the company to largely reduce its prices for electric lighting to the public, and still have a more profitable business than formerly. The company's earnings will also be largely increased by the operation of Sunday cars, which have only been approved recently of by popular vote. The bonds are offered at 106 and accrued interest, yielding investor nearly 4⅝% per annum.

Hamilton, Grimsby and Beamsville Electric Ry.—A special meeting of shareholders was held Sept. 18, to consider the deviation of the line to avoid Red Hill, and the proposed extension to St. Catharines, Ont. It was decided to apply to the Ontario Legislature to renew the company's powers to construct the extension, and the other matter will come up at an adjourned meeting Oct. 16. (Sept., pg. 549.)

The Montreal Light, Heat and Power Co. has has ordered a large addition to its equipment from the Canadian Westinghouse Co. for its new Soulanges canal power station on the St. Lawrence River. The equipment consists of three Westinghouse 3750 kw. revolving field alternating current, two-bearing generators conuected to water turbines. These generators are 7,200 alternations, 4,000 volts, three-phase, operating at 225 revolutions per minute. There are also two Westinghouse 150 kw. direct current 125 volt exciter units. Westinghouse 2,500 kw. oil-insulated, water-cooled transformers, to the number of thirteen are an important part of the equipment. Seven of these transformers will be used for raising the voltage at the generating station from 4,000 to 44,000 volts, and six of them will be used at the lowering end of the transmission line, stepping down the voltage from 44,000 to 12,000. The generators and exciters will be controlled by motor-operated rheostats and the complete switchboard apparatus, which the Canadian Westinghouse Co. is furnishing for both the main and substations, will involve the latest type of electrical control, representing the highest development of switchboard apparatus

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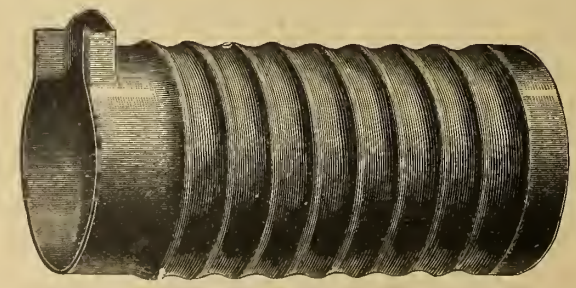

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Grain Shipments from the Twin Ports.

Number of cars of grain received over the C.P.R. and Canadian Northern Ry. at Fort William and Port Arthur for the crop year of 1905 (Sept. 1, 1905, to Aug. 31, 1906):

	C.P.R. Fort William Cars	Can. Northern Port Arthur Cars	Total Cars
Wheat	40,203	11,922	52,125
Oats	2,934	467	3,401
Barley	467	365	832
Flax	371	21	392
Rye	1	..	1
Totals	43,976	12,775	56,751

Shipments by vessels from Fort William and Port Arthur, with destinations of same, for the crop year 1905 (Sept. 1, 1905, to Aug. 31, 1906) in bushels:

Destination	Wheat	Oats	Barley	Flax
Owen Sound	2,782,500	1,188,244	87,324	.....
Midland	3,900,527	.....	.....	.....
Depot Harbor	8,456,642	612,984	.....	.....
Collingwood	509,140	.....	.....	.....
Pt. Edward	2,327,864	10,000	64,432	146,408
Meaford	688, 852	.....	.....	...
Goderich	1,491,207	.....	.....	.....
Port Colborne	135,213	.....	.....	.....
Thorold	447,063	.....	.....	.....
Kingston	876,583	.....	125,515	.....
Montreal	9,321,013	1,892,006	293,775	78,757
Prescott	59,657	.....	.....	.....
Pt.Huron(Can.)	1,518,370	.....	.....	.....
Pt.Huron(U.S.)	619,606	.....	.....	97,130
Buffalo (Can.)	958,939	.....	.....	.....
Buffalo (U.S.)	14,379,510	195,851	.....	18,829
Erie (Canada)	212,183	.....	.....	.....
Erie.(U.S.)	742,393	.....	.....	.....
Totals	49,627,267	3,899,086	571,047	341,127

RECAPITULATION STATEMENT

Total amount of grain shipped from Fort William and Port Arthur during the crop year of 1905 (Sept. 1, 1905, to Aug. 31, 1906) in bushels:

	Wheat	Oats	Barley	Flax
Fort William	42,587,536	4,766,759	528,870	157,390
Port Arthur	12,922,184	954,056	430,676	299,538
Totals	55,509,720	5,720,815	959,546	456,928

Many happy returns of the day to—

R. C. F. Alexander, Resident Engineer C. P.R., Farnham, Que., born at Guelph, Ont., Oct. 20, 1875.

W. H. Moore, Secretary Canadian Northern Ry., etc., Toronto, born Oct. 19, 1872.

Grain Elevator Notes.

An elevator is to be built by — Jamieson, Innisfail, Sask., where the C.P.R. is about to put in a siding with accommodation for several elevators.

The Ogilvie Flour Mills Co.'s elevator at Fort William, Ont., which recently collapsed owing to some subsidance in the vicinity of the foundations, has been taken down and preparations are being made for its re-erection.

The Department of Railways and Canals has awarded the contract for the erection of an 800,000 bush. elevator at Port Colborne, Ont., to P. Lyall and Sons, Montreal. J. A. Jamieson, Montreal, is the engineer in charge of the work for the Government.

H. Sutherland, Executive Agent Canadian Northern Ry., states that the report that the Peavey Elevator Co. had taken over the Canadian Northern Ry. Co.'s elevators at Port Arthur, Ont., was incorrect. A working agreement had been arrived at between the two companies by which the elevators would be run jointly, to the mutual advantage of the companies and the people who had grain to ship.

The McCabe Elevator Co. has been incorporated under the Manitoba Companies' Act, with a capital of $150,000 and offices at Winnipeg, Man., for the purpose of carrying on a general elevator business throughout the province, and such other businesses as may be carried on in connection therewith. The provisional directors are: G. H. McCabe, Grafton, N.D.; W. J., and W. M. McCabe, Duluth, Minn.; Jas. McCabe, Minneapolis, Minn.; and G. Wilson, Duluth, Minn.

The elevator accommodation at Midland and Tiffin, Ont., on the Georgian Bay, is to be increased, and plans have been filed with the Department of Public Works, by the G.T.R., showing what it is proposed to do there. Prior to the construction of the additional elevators being gone on with the G.T.R. is asking the Government to do some dredging so that the largest lake steamers can be brought alongside. The plans, we were advised Sept. 12 complete the erection of an additional elevator of about 2, 000,000 bush. capacity.

The Saskatchewan and Western Elevator Co. has been incorporated under the Manitoba Companies' Acts, with a capital of $200,000 and offices at Winnipeg, Man., for the purpose of carrying on a general elevator business as well as a number of other businesses, in Winnipeg and throughout the province. The company is authorized to take over as a going concern the business now carried on by the Topper Elevator Co. The provisional directors are; J. J. Sinclair, Stephen, Minn.; J. Sinclair, Argyle, Minn.; F. E. Topper, Radisson, Sask.; J. T. Haig, C. E. Williams, Winnipeg, Man.

The Quebec courts have given the Montreal Grain Elevating Co. a verdict for $13,-000, with interest from date of service of protest, and costs, against the Montreal Harbor Commissioners. The action arose out of the sinking of one of the plaintiff's floating elevators on May 6, 1903, through coming in contact with a sharp angle or point of a pier which the Commissioners had under construction, and which had been left exposed by the negligence of the Commissioners. The plaintiff company originally claimed $25,000, of which $13,000 represented the value of the elevator, and the balance the damages occasioned by the loss of earnings for the season. This latter part of the claim was abandoned.

The Grain Growers' Grain Co. has been incorporated under the Manitoba Companies' Act with a capital of $250,000 in $25 shares to carry on a grain buying business throughout the province; to lease or otherwise acquire elevators. The company is reported to have entered into an arrangement with the C.P.R., by which it has secured special bins in that company's terminal elevators, and that it is negotiating a similar arrangement with the Canadian Northern Ry. The company's officers are; President, E. A. Partridge, Sintaluta, Man.; Vice-President, J. Kennedy, Swan River, Man.; Secretary-Treasurer, J. Spencer, Winnipeg; Managers, T. Coulter and A. M. Blackburn. The offices are at Winnipeg.

MARINE DEPARTMENT

New Hydrographic Survey Steamer.

The dimensions of the new steel steamer which is to be built at Esquimalt, B.C., for the Dominion Government hydrographic survey on the Pacific coast are: length, 163 ft. between perpendiculars; breadth, 27 ft.; depth, 15 ft.; displacement, 780 tons; coal capacity on 11 ft. 3 ins. draught, 150 tons. She will have a double bottom under her machinery space, and water-tight 'tween deck fore and aft, with ample cross bulkheads, water-tight flats, etc., to make the vessel unsinkable in case of accident when cruising in unsurveyed waters. She will be of steel throughout, with bilge keels and large fresh water tanks. She is intended to be slightly stronger than Lloyds require both in plating and frames.

She will have two decks, main and spar. The main deck forward will be sheltered by extending the bulwarks right up to the spar deck for a distance of 35 ft. Under this shelter will be bath and washrooms for crew refrigerator, vegetable locker, etc. On this deck will be a steel house 90 ft. long by 18½ ft. wide, leaving a passage on each side 4 ft. wide. In this house will be situated saloon and smoking room with pantry and storeroom aft for surveying staff, large engine room, boiler room, galley, cabins for engineers and mate, and bath, pantry and saloon for ship's officers. In a small house on the spar deck will be wheelhouse, cabin for sailing master and large airy chartroom. Abaft the smoke-stack will be fitted six pairs of davits for two launches, two gigs and two dories, with steam winch for hoisting them. This spar deck will be the full size of the main deck below. Over the wheelhouse will be the bridge, extending from side to side and fitted in the usual way. The main accommodation will be fitted below the main deck. The crew and firemen in separate quarters forward, petty officers in cabins between forecastle and coal bunker, and the surveying staff abaft the engine room, four large cabins and bathroom for assistants; and cabin, sitting room and bathroom for the officers in charge. She is expected to carry five surveying officers, four ship's officers and 33 of a crew.

She will have sounding instruments, a sounding winch of special construction, a special set of compasses for use in finding exact locations, electrical fittings, searchlight, and there will be a couple of good power launches carried on the shade deck, heavily constructed above the main deck fore and aft, and carrying the boats, as well as sheltering the deck houses. The bow will be strengthened and the vessel fitted in every way for deep sea service, if required for heavy weather service at sea.

As mentioned above she will have twin-screw, triple-expansion engines, 11½, 18 and 24 in., with a 24 in. stroke driving two four-bladed propellers 8 ft. in diameter, 120 revolutions, developing about 900 h.p. Steam will be furnished by two Scotch marine boilers, 10¼ ft. long by 11½ ft. diameter, fitted with forced draught, each with three corrugated furnaces giving a total grate surface of 90 sq. ft. and 2,200 sq. ft. of heating surface. With 180 lbs. steam, a steady speed of 11½ knots is expected, and at a moderate speed her steaming radius should be 4,000 miles. Steam will be used for heating, steering, refrigerator plant, turbine for electric light, windlass, hoisting, etc.

The steamer was designed by R. L. Newman, of Victoria, B.C., in the office of W. J. Stewart, hydrographer, Ottawa, and the plans were approved by the Minister of Marine April 15, when tenders were invited. She is to be completed and delivered ready for service July 1, 1907.

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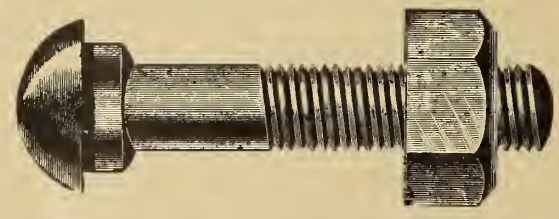

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LIST OF STEAM VESSELS REGISTERED IN CANADA FROM AUG. 15 TO SEPT. 15.

Name.	No.	Where and When Built.	Engines, etc.	Length	B'dth.	Depth.	Gross tons.	Reg. tons.	Home Port.	Owners.
Algonquin ...	122,076	Huntsville, Ont., 1906....	Screw 32 N.H.P.....	120.0	23.8	6.5	305	200	Toronto, Ont.....	Huntsville, L. of Bays & L. Sim. Nav. Co.
Alpha	122,047	St. Andrews, N.B., 1906...	" 20 "	43.0	12.0	4.6	15	10	St. Andrews, N.B....	L. C. Guptill, Grand Manan, N.B.
Atlantic.....	122,143	Shelburne, N.S., 1906.....	" 16 "	92.0	18.0	8.0	98	67	Yarmouth, N.S.....	Atlantic Fish Co., Lunenburg, N.S.
Blitz.....	121,936	Dartmouth, N.S., 1905....	" 10 "	28.5	4.6	3.0	3	2	Halifax, N.S.....	A. R. Cogswell, Halifax, N.S.
Colonial.....	122,012	Kippewa Lake, Que., 1906.	" 9 "	52.0	12.3	4.4	47	25	Ottawa, Ont.....	Colonial Lumber Co., Pembroke, Ont.
Emily May...	117,083	Collingwood, Ont., 1906....	" 9 "	59.0	14.0	6.0	30	20	Collingwood, Ont....	M. McInnes, Meaford, Ont.
Etta.....	122,069	Maisonneuve, Que., 1906...	" 4 "	40.3	10.2	3.9	13	9	Montreal, Que.....	N. E. Picotte, Montreal, Que.
Ferdinand....	122,221	St. Antoine, Que., 1905....	" 27 "	87.0	17.6	5.4	76	48	Montreal, Que.....	F. Fecbeau, St. Antoine, Que.
Fire King....	121,776	Winnipeg, Man., 1906.....	Paddle 4 "	96.0	19.0	5.0	102	69	Winnipeg, Man.....	Man. Land & Dred. Co., Winnipeg, Man.
Freddy Adams	122,080	Parry Sound, Ont., 1906..	Screw 1 "	40.0	8.7	5.0	16	11	Toronto, Ont.....	Geo. E. Adams, Parry Sound, Ont.
Ganges.....	121,763	Vancouver, B.C., 1905.....	" 2 "	47.5	11.1	5.1	22	15	Vancouver, B.C.....	Malcolm & Purvis, Ganges, B.C.
Gladys.....	121,765	Vancouver, B.C., 1905.....	" ½ "	28.7	7.4	3.2	10	3	" "	W. A Clark, Vancouver, B.C.
Haiade.....	121,764	Vancouver, B.C., 1906.....	" 3 "	41.2	10.6	4.1	19	13	" "	G. Harvey, Vancouver, B.C.
Helen.....	122 077	Hamilton, Ont, 1906.....	" 1 "	25.5	6.2	2.7	3	2	Toronto, Ont.....	H. L. Bastien, Hamilton, Ont.
Helena.....	122.078	Hamilton, Ont., 1906.....	" 1 "	22.5	6.2	2.7	3	2	" "	" "
Lena.....	122,079	Hamilton, Ont., 1906.....	" 1 "	25.5	6.2	2.7	3	2	" "	" "
Marita.....	121,935	Dartmouth, N.S, 1905....	" 15 "	29.0	4.5	3.0	3	2	Halifax, N.S.....	D. R. Turnbull, Halifax, N.S.
Mattie.....	122,213	Toronto, Ont., 1903.....	" ½ "	22.0	5.7	2.7	2	1	Toronto, Ont.....	C. M. Hincks, Toronto.
Restless.....	117,159	New Westminster, B.C., '06.	" 16 "	71.0	17.0	7.0	71	53	N. Westminster, B.C..	West. Tow. & Fish Co., N. West., B.C.
Rosena.....	122,212	Gregory, Ont., 1906.....	" ½ "	33.0	7.6	3.0	6	4	Toronto.....	E. J. Hames, Medora, Ont.
St. Anne.....	121,924	St. Anne, Que., 1905.....	Paddle 9 "	77.0	22.2	5.4	100	63	Quebec, Que.....	O. Tremblay, St. Anne, Que.
Spray.....	121,775	Selkirk, Man., 1906.....	Screw 2 "	44.0	13.5	4.0	18	12	Winnipeg, Man.....	T. B. Priest, Selkirk, Man.
Susie Kennedy	117,037	Penetanguishene, Ont., 1904	" ½ "	27.5	7.8	2.8	4	3	S. Ste. Marie, Ont....	M. Burton, Barrie, Ont.
Sweepstakes..	122,211	Simcoe, Ont., 1901.....	Paddle 2 "	37.0	10.0	4.0	28	18	Toronto, Ont.....	Turner Lumber Co., Toronto.
Tilly.....	121,768	Vancouver, B.C., 1905.....	Screw ½ "	20.5	5.8	2.7	2	1	Vancouver, B.C.....	G. A. Rœdder, Vancouver, B.C.
Togo.....	117,038	Massey, Ont., 1905.....	" 1 "	44.0	10.4	5.0	15	8	S. Ste. Marie, Ont....	C. J. Clark, Massey, Ont.

LIST OF SAILING VESSELS AND BARGES REGISTERED IN CANADA FROM AUG. 15 TO SEPT. 15.

Name.	No.	Where and When Built.	Rig.	Length	B'dth.	Depth.	Gross tons.	Reg. tons.	Home Port.	Owners.
Athlete.....	121,895	Shelburne, N.S., 1906.....	Sloop	38.0	13.0	5.7	13	13	Shelburne, N.S....	J. C. Cook, Grand Harbor, N.B.
Basil M.Geldert.	103,755	La Have, N.S., 1897.....	Schr.	89.0	24.6	9.5	144	99	Liverpool, N.S.....	P. H. Gasler, Halifax, N.S.
Berks.....	122,113	Philadelphia, Pa., 1874....	"	191.0	29.0	14.0	560	543	Sydney, N.S.,.....	A. B. Mackay, Hamilton, Ont.
Bolivia.....	122,222	Oswego, N.Y., 1874.....	Barge	140.0	26.4	12.7	355	310	Montreal, Que.....	A. Mondor, Lanoraie, Que.
Cerita.....	122,145	Tusket Wedge, N.S., 1906.	Sloop	30.0	11.0	6.0	10	10	Yarmouth, N.S....	J. C. Doucette, Tusket Wedge, N.S.
Dominion.....	116,383	Port Arthur, Ont., 1905....	Dred.	114.9	43.5	12.0	951	954	Port Arthur, Ont...	Great Lakes Dredging Co., Port Arthur, Ont
Dredge No. 8...	116,384	Duluth, Minn., 1888.....	"	96.0	36.0	9.5	415	415	" "	" " " "
Duke of York...	122,068	Montreal, Que., 1903.....	"	74.5	25.1	6.0	187	144	Montreal, Que.....	W. J. Poupore, Montreal, Que.
Emma Jane.....	117,054	White Haven, N.S., 1906..	Schr.	38.0	13.0	7.0	16	16	Canso, N.S.....	J. L. George, White Haven, N.S.
Etta M.....	122,137	Barrington, N.S., 1905.....	Sloop	30.0	10.6	6.0	10	10	Yarmouth, N.S....	C. Kendrick, Shag Harbor, N.S.
Flirt.....	122,146	Tusket Wedge, N.S., 1906.	"	36.0	13.0	6.6	16	16	" "	M. Boudreau, Tusket Wedge, N.S.
Flora.....	122,046	Essex, Mass., 1866.....	Schr.	55.0	17.2	6.5	37	34	St. Andrew's, N.B.	G. P. Newton, Grand Manan, N.B.
Gwenol.....	121,976	Victoria, B.C., 1895.....	Sloop	40.0	10.8	2.6	7	5	Victoria, B.C.....	J. S. Gibb, Victoria, B.C.
Halytan.....	121,835	Cambridge, N.B., 1905.....	Schr.	44.7	15.6	8.3	31	31	St. John, N.B.....	W. A. S. Dykeman, Cambridge, N.B.
Hazel.....	122,139	Barrington, N.S., 1906.....	Sloop.	30.0	11.0	6.0	10	10	Yarmouth, N.S....	D. E. Watkins, Barrington, N.S.
Henry H. Dicks.	122,114	New Harries, N.S., 1906...	Schr.	70.0	20.5	8.0	68	65	Sydney, N.S.....	W. G. Dicks, Georgetown, P.E.I.
Howard Young..	122,001	Lunenburg, N.S., 1906.....	"	75.2	22.4	8.6	75	75	Lunenburg, N.S...	J. Young, Lunenburg, N.S.
Intrepid.....	121,747	Vancouver, B.C., 1906.....	Sloop	27.2	9.4	4.8	8	8	Vancouver, B.C....	L. G. Jewett, Vancouver, B.C.
Isaac Hunter...	122,013	Kippewa Lake, Que., 1906.	Barge	50.0	14.9	4.4	48	48	Ottawa, Ont.....	Colonial Lumber Co., Pembroke, Ont.
Jas. H. Stetson .	103,804	Lubec, Me., 1868.....	Schr.	72.0	19.5	6.5	81	71	Pictou, N.S.....	T. Wickham, Souris, P.E.I.
Jennie L.....	122,138	Clyde, N.S., 1905.....	Sloop	30.0	11.0	6.0	10	10	Yarmouth, N.S....	J. A. Smith, Port La Tour, N.S.
Lady Betty.....	121,937	New Bedford, Mass., 1901..	"	28.8	7.7	4.5	5	5	Halifax, N.S.....	S. C. Oland, Dartmouth, N.S.
Laure Hortense.	121,925	St. Fidele, Que., 1906.....	Schr.	66.6	19.0	6.5	50	50	Quebec, Que.....	W. Bhereur, St. Fidele, Que.
Lizzie D.....	122,144	Salmon River, N.S., 1906..	Sloop	35.0	11.3	5.6	12	12	Yarmouth, N.S....	E. C. Devean, Salmon River, N.S.
Loren B. Snow..	121,816	Lunenburg, N.S., 1906.....	Schr.	89.8	24.6	10.0	96	85	Digby, N.S.....	J. E. Snow, Digby, N.S.
Louisa Ellen....	117,100	White Head, N.S., 1905....	"	35.0	10.5	6.0	11	11	Arichat, N.S.....	P. Conway, White Head, N.S.
Lueille.....	116,905	Parrsboro, N.S., 1906.....	"	102.5	28.8	10.0	189	164	Parrsboro, N.S.....	H. Randall, Parrsboro, N.S.
Mabel L.....	122,140	Barrington, N.S., 1906.....	Sloop	30.0	10.6	6.0	10	10	Yarmouth, N.S....	H. Banks, Shag Harbor, N.S
Pescawha.....	122,022	Liverpool, N.S., 1906.....	Schr.	90.0	23.0	9.4	98	98	Liverpool, N.S.....	J. Millard, Liverpool, N.S.
Saucy Imp.....	122,048	West Isles, N.B., 1906.....	Sloop	28.0	11.7	6.0	11	11	St. Andrew's, N.B.	C. Green, West Isles, N.B.
Swan.....	122,075	Huntsville, Ont., 1906.....	Scow	48.0	18.3	3.3	66	66	Toronto, Ont.....	Huntsville, Lake of Bays and Lake Simcoe Navigation Co.

The Donaldson Liner Cassandra

The new Donaldson Line S.S. Cassandra was given her trial trip on the Clyde, Sept. 2, and attained a speed of 14¾ knots an hour. She sailed from Glasgow, Scotland, for Montreal, Sept. 22, and is scheduled to sail from Montreal on the return trip Oct. 11. The Cassandra is a steel twin-screw steamer, about 8,000 tons gross, of the shelter deck type, 455 ft. in length, 53 ft. breadth and 40 ft. depth, to shelter deck. She provides accommodation for only two classes of passengers, second cabin and steerage. The former are berthed on the shelter, bridge and boat decks. The saloon, which is amidships, extends the entire width of the ship, and is finely decorated and panelled in polished oak and mahogany, and lighted from a well passing through the music room to the flying bridge deck. The music room is a handsome apartment, finished in white enamel. A large smoking room is provided at the after end of the bridge deck. The staterooms are of exceptional size, and each is supplied with folding iron beds, sofas, and all the most modern fittings for the comfort and convenience of passengers.

Accommodation is also provided for about 1,000 third-class passengers. The berths are all arranged in rooms, and are of galvanized iron. These rooms, and all the other apartments for the use of steerage passengers, are in accordance with the most modern practice. A recreation room for their sole use is also provided. While the vessel is primarily intended for the conveyance of passengers, she is also very completely equipped for the carrying of cargo and cattle. The cargo holds are five in number, and provide stowage for 9,000 tons of dead weight cargo. The loading and discharging arrangements are of the most improved description—10 derricks and 10 steam winches being fitted. That part of the 'tween decks not otherwise occupied by accommodation is fitted up for the carrying of cattle on the return voyage, stalls being provided for 800 head. A large refrigerating chamber is fitted in the lower 'tween decks, as it is intended that the vessel shall carry frozen meat and dairy produce from Canada to Great Britain. This arrangement also provides a chamber for provisions for passengers' use on the voyage. The vessel is fitted throughout with electric light, and, to ensure the proper lighting of the ship under all conditions, two sets of plant are fitted, each of which is capable of maintaining the entire installation. The Cassandra is fitted with twin-screw, triple-expansion engines. The cylinders are 26, 42 and 70 in. diameter, while the piston has a stroke of 48 in. The shafting throughout is half an inch in excess of the diameter required by Lloyds' rules. The propellers are 16½ ft. diam., and have cast-iron bosses fitted with cast-steel blades. The surface condensers are cylindrical, with large cooling surface, built of steel plates and supported on the wing columns. Besides the usual bilge, feed and sanitary pumps, driven by the air-pump levers off the main engines, there is a complete equipment of auxiliary machinery, comprising feed pumps, feed heater and filter, evaporators, duplex pumps, etc. Two ash ejectors are fitted, as well as steam ash hoist engine and hand winches. An auxiliary condenser is also fitted for dealing with the exhaust steam from the winches and auxiliaries. Steam is supplied by two single-ended, and two double-ended boilers working under natural draught at 180 lbs. working pressure. All are 15 ft. 9 in. in diameter, and 11½ ft. and 20 ft. long respectively. There are 18 furnaces of Morison's corrugated type, and balanced fur-

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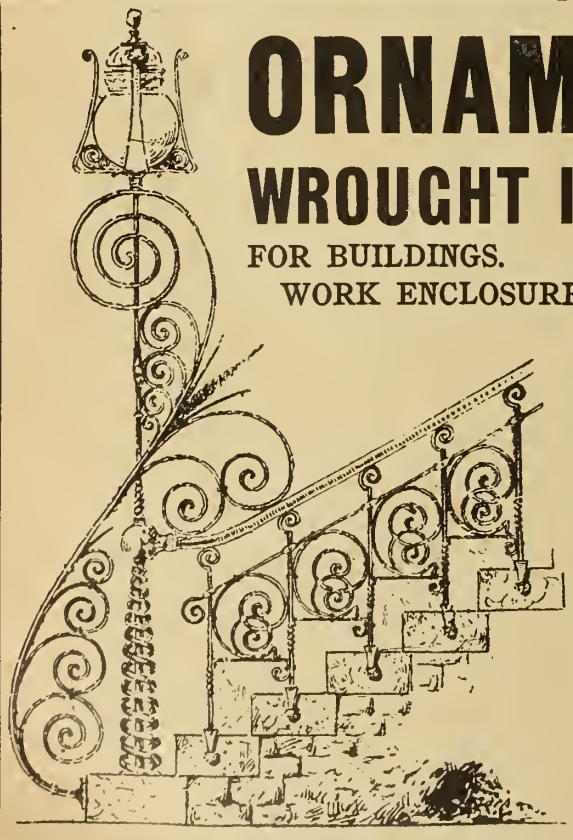

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nace doors are fitted to each. There is one double funnel 14 ft. in diameter, with a height of 90 ft. from fire grate to top of funnel. The main and auxiliary steam pipes are of lap-welded wrought iron, suitably arranged to take up expansion. The engines will develop sufficient indicated horse power to give a speed of 14¾ knots at sea. All the machinery has been constructed to the Board of Trade and Lloyds' requirements.

The Donaldson Line is also running the S.S. Athenian in the passenger and freight service, so that with the Cassandra a regular service can be maintained between Glasgow and Canada. The company also operates a number of freight steamers between the same points.

The Sinking of the Chehalis Tug.

The investigation into the circumstances attending the sinking of the tug Chehalis on July 21, by the C.P.R. str. Princess Victoria, was held at Vancouver, B.C., Aug. 22 to Aug. 31, before Justice Morrison, Deputy Local Judge in Admiralty, with Capt. Hunt, R.N., and Capt. J. G. Cox as nautical assessors. The finding of the Court is as follows:

The tug Chehalis, a low-powered vessel making about 8 knots; length, 59.3 ft; beam, 13 ft.; depth, 6.5 ft.; freeboard, about 2 ft.; gross tonnage, 54; and certified to carry 15 passengers; owners, the Union S.S. Co., of Vancouver; master, Capt. House; whilst chartered to convey eight passengers to a point on the north coast of B.C., departed outbound from North Vancouver, July 21, at 1.55 p.m., taking and maintaining the usual course followed by craft of her dimensions outbound from North Vancouver. The master in charge of the Chehalis holds a certificate of competency as master of a passenger steamer in the coasting trade. She was duly inspected.

The Princess Victoria is a 21-knot, twin-screw passenger boat of 6,000 h.p., owner the C.P.R. Co., plying between Vancouver, Victoria and Seattle, U.S.A., master, Capt. Griffin. Dimensions, length, 300 ft.; breadth, 42.6 ft.; depth 17.6 ft. She is fitted with steam stearing gear; telegraph having an automatic tell-tale on each side. She had been duly inspected. Her life-saving apparatus, boats and other equipments in best of condition and order, and in accordance with the rules and regulations. The captain and other officers had been fully notified and instructed in writing by the owners, to observe the greatest caution as against accidents; and to subordinate the running schedule, and the making up of time, to the safety of the ship and passengers. She took her departure outbound at 2.02 p.m., from her berth at shed 1 at the company's wharves, Vancouver, carrying 219 passengers; the full-speed bell was rung at 2.06; the full-speed astern bell rung at 2.11½; engines stopped at 2.13. The day was fine and clear with a light westerly breeze. There was an unobstructed view of the north shore of the harbor, and of the harbor between Brockton point and North Vancouver, along which the Chehalis was shaping her course. Both vessels were making for the narrows, the Chehalis being in full view of the Princess Victoria and ahead of her and well to starboard.

Proceeding around Brockton Point outbound ahead of the Princess Victoria and on her port bow, was a small gasoline launch.

THE S.S. CASSANDRA—BUILT RECENTLY FOR THE DONALDSON LINE.

The master of the Princess Victoria, noticing the Chehalis shortly after leaving the wharf, and before reaching the buoy on Burnaby shoal, erroneously made up his mind that, as she was apparently steering down the narrows and appeared sufficiently far over on the north side he need not take any more notice of her as he intended to pass close round Brockton Point and keep along the south shore of the narrows, heading inside Prospect Point. It appears that the motor launch on the port bow was not noticed by the officers in the pilot-house of the Princess Victoria until the helm was put to starboard to round Brockton Point, and then their attention was riveted on the launch and the Chehalis was forgotten. The helm of the Princess Victoria was steadied sooner than was intended so as to clear the launch, and when this was accomplished by a narrow margin the Princess Victoria was heading probably straight through the narrows, but no doubt swerving a little before steadying down on her new course; at this moment the Chehalis was suddenly found to be within a ship's length and apparently crossing the bows of the Princess Victoria; she may have swerved in her course, by use of helm or otherwise, or the Princess Victoria may have done so in the act of steadying; anyhow, it was suddenly discovered by the Princess Victoria that a collision was extremely probable, and two blasts were blown which should have indicated a use of starboard helm, whereas the engines were put full astern instead, and the helm kept amidships. The collision took place apparently within 30 seconds of the Chehalis being, as it were, rediscovered by the party in the pilot-house of the Princess Victoria. Both vessels were on the wrong side of the channel, but the Chehalis was steering more or less the only practical course for a vessel of her power—that is, she was gradually edging over from the eddy on the north side to the eddy on the south side of the narrows. Being the overtaken ship she would have every reason to believe that the Princess Victoria would, even at the last moment, pass under her stern, especially knowing what a handy vessel she was. When the collision appeared very probable, at the time the two whistles were blown, the Chehalis did her best to minimize the danger by putting her helm hard aport, and it would appear that had the Princess Victoria at this moment put her helm hard over one way or the other, or put one screw only full astern, the collision would not have occurred. The causes which led to the Chehalis getting into such close proximity to the Princess Victoria are as follows, but these causes were not allowed for by the Princess Victoria, though the Princess Victoria should have known of them and their effect.

The Princess Victoria, on passing the Burnably shoal, was passing 15 knots over the ground; the Chehalis on her starboard bow was making about 3 knots over the land, and about three points leeway, that is 30 deg. to 40 deg. to port of the direction of her head. This the Chehalis continued roughly to do from the time she was originally sighted until immediately before the collision, the Princess Victoria taking it for granted that the Chehalis was making in the direction she was pointing. Had the Princess Victoria continued to make 15 knots over the land, she would have easily passed ahead of the Chehalis, but on turning into a six-knot tide on her port bow she was not only set slightly over bodily towards the Chehalis, but also suffered a loss of speed compared with the Chehalis of about 7 knots (6 being due to current and 1 to helm). This would at once alter the aspect, and would prevent the Princess Victoria passing

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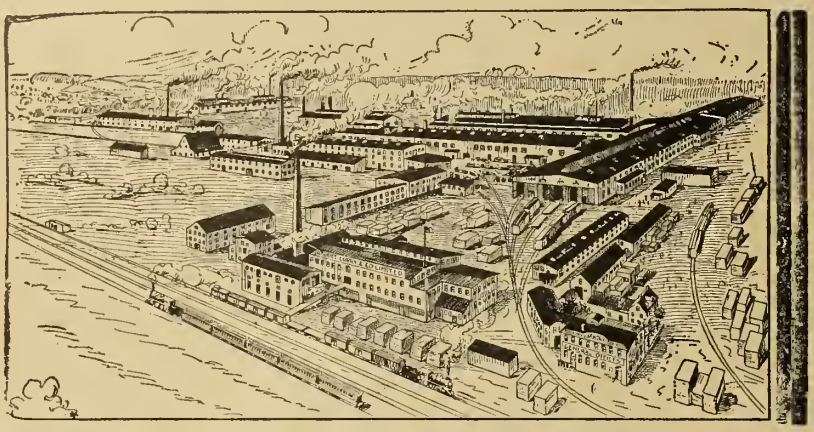

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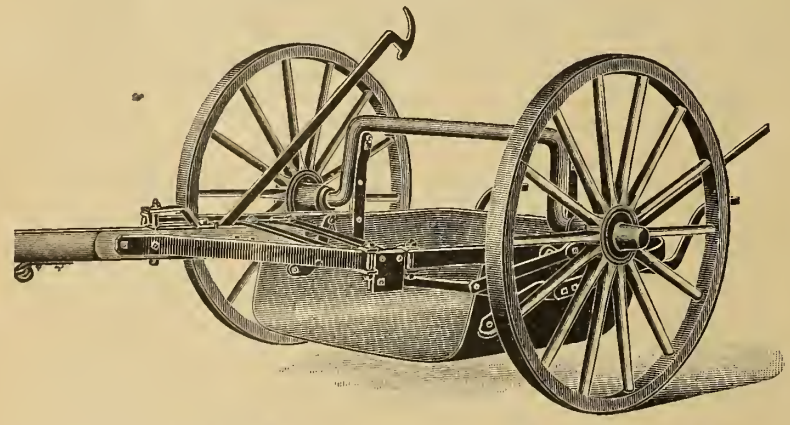

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Summer Schedules in effect June 24th, 1906.

Abel I. Culver, 2nd Vice-President. **J. W. Burdick,** Pass. Traffic Man.

A. A. Heard,
Gen. Passenger Agent, - - ALBANY, N.Y.

ahead of the Chehalis. When this fact should have become patent the whole attention of the Princess Victoria was taken up with the motor launch, and the party in the pilot-house on suddenly seeing the Chehalis so close, and apparently crossing their bows, imagined she must have suddenly altered course considerably. Whether she did or not, the fact remains that the two smaller boats were converging on one another, and the Princess Victoria, an overtaking vessel, tried to cut in between them and failed, when there was no reason why she should not have gone under the stern of the Chehalis, having two-thirds the channel clear, and she would be on the proper side of it in case of meeting another ship.

The main causes of the collision were the disregard of the motor launch until it was dangerously close, and the forgetfulness for probably a vital minute on the part of those navigating the Princess Victoria that the Chehalis existed. Even were the Chehalis as contended undermanned, it did not in any way contribute to the collision.

In the collision which occurred, both vessels came together with a slight impact, the Princess Victoria's starboard bow coming in contact with the Chehalis about 18 ft. from the stern, the latter careening to starboard, and completely turning over, whilst lying across the Princess Victoria's bows, and then sinking. Of the 15 persons on board the Chehalis, six were rescued. Apparently the remainder were unable to extricate themselves and went down with her. The hull of the Chehalis has not been located, or any of the bodies recovered.

The Court has come to the conclusion that the collision was caused solely by the want of care in the navigating of the Princess Victoria under the command of Capt. Griffin. We find that Capt. Griffin displayed ignorance of article 28 of the collision regulations. We also find that every proper care was taken after the collision on the part of the officers of the Princess Victoria to rescue survivors. The Court is of the opinion that the time has now come when special regulations should be put in force governing the passing of vessels in and out of the narrows at the entrance of the harbor of Vancouver, and it recommends that a commission be appointed to frame regulations to guard against accidents which are bound to occur in the future, owing to the dangerous nature of the narrows, and the great increase of shipping, especially as regards small craft, which at the present have equal rights with large vessels. The Court suspends the Board of Trade certificate, no. 08770, of Capt. T. O. Griffin, dated May 31, 1884, for six months from July 21, 1906.

The costs in regard to the subpœnaing of witnesses and other costs will follow the event, subject to any decision the Minister may be pleased to come to in respect thereof.

S. Kempton has been appointed measuring surveyor of shipping for the port of Liverpool, N.S.

The Drainage Canal Co. is the title of a company for which a charter of incorporation will be asked next session of the Dominion Parliament. The object which the company has in view is the construction of a navigable waterway from the Richelieu River, south of St. John's, Que., through St. John's parish, either to the Richelieu River, or through the parish of St. Marguerite of Blairfindie to the Montreal River; the canal to be sufficient for the passage of deep draught vessels. Power is also sought to construct wharves, docks, locks, tramways, railways, telephone and telegraph lines, an electric light and power plant, and to charge tolls and dues. McGiverin and Haydon, Ottawa, are solicitors for the applicants.

THE DOMINION GOVERNMENT ICEBREAKING STEAMSHIP LADY GREY.
Photographed as she was taking the water at the launching.

The Icebreaking S.S. Lady Grey.

The steamship Lady Grey, launched at the yard of Vickers, Sons and Maxim, Barrow-in-Furness, Eng., Aug. 21, for the Dominion Government, will be utilized for icebreaking on the St. Lawrence during the winter, and for survey and towage work during the open season of navigation. The principal dimensions and particulars are: Length between perpendiculars, 172 ft.; breadth moulded, 32 ft.; depth moulded, 18 ft.; draft normal, 12 ft.; draft mean when breaking ice, 13 ft.; displacement, 1,055 tons; speed, 14 knots. The hull is built of great strength to withstand the shocks due to impact against ice floes and to pounding of ice, and in view of surveying and other work the fittings and equipment conform in all respects to the requirements of the Board of Trade and the Canadian Steamboat Inspection Act. The bow is of the Canadian type, formed for mounting and breaking through green ice and for going through pack ice. To counteract pressure a broad belt of heavy plating is fitted right fore and aft, extending in depth considerably above and below the water line, and the gross sectional form of the boat is such as to resist the lateral pressure of the ice, which might otherwise close in and nip the hull. To further counteract thwartship pressure double framing has been fitted by the introduction of intermediate channels. Forward, where the vessel first strikes the ice, these additional members extend from the keel to the main deck, while aft they are introduced between the bilge and the main deck. The side plating is also increased in thickness from the stem to a point well aft of midships. The hull is divided into six watertight compartments, and a double bottom extends from the forward to the after peak bulkheads. The compartments forward and aft of these bulkheads are arranged as deep ballast tanks, into or from which water can be pumped to quickly alter the trim to assist the vessel in riding over the ice, where, by reason of the superimposed weight, the ice is broken. A large pipe connects these various tanks with the ballast pumps for quickly emptying one into another In addition to the usual steam windlass and cargo winch, steam capstans have been fitted forward and aft for warping. The boat is fitted with large rudder and proportionately powerful hand and steam steering gear. The portion of the rudder head at and above water level is protected by a heavy casting, and the gear is made strong enough to withstand excessive pressure when working among ice. A large steel deckhouse is fitted on the main deck, ranged for the ship's officers and engineers' cabins, with suitable mess-room, galley and pantry. A spacious saloon is also provided in the deckhouse for officials. A smaller private saloon, with a suite of cabins, is also provided in a teak deckhouse on the hurricane deck. Cabins are also provided on the lower deck aft. The crew are housed in the forecastle and on the lower deck forward. The ship has an electric lighting installation, and there is a 16,000 candlepower searchlight. The current is supplied by duplicate sets of engines and dynamos. The propelling machinery consists of two sets of inverted, vertical, direct-acting, triple expansion, surface condensing engines, having three cylinders working on cranks placed at angles of 120° with each other, the sequence being high, low, and intermediate when running at 130 revolutions a minute are capable of developing collectively 2,300 indicated h.p. The diameter of the h.p. cylinders is 19 in., of the intermediate cylinders 30 in. diameter, and of the low pressure cylinders 49 in. diameter, with a stroke of 27 in. Cast-iron liners are fitted in the h.p. cylinders only. The steam distribution valves are of the piston type for the h.p. cylinders, of the trick type for the i.p. cylinders, and of the double ported flat form for the l.p. cylinders, and each is actuated by valve gear of the double eccentric link motion, with reversing gear of the direct-acting steam and hydraulic description. The columns are iron castings of box section. The condensers, the back column, centrifugal pumping engines for supplying the circulating water, are fitted for each condenser, but there is a cross connection

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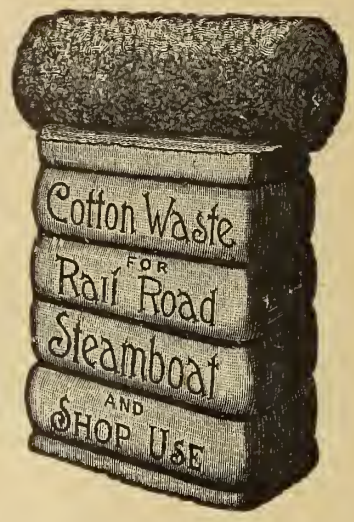

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so that either pump can circulate through any or both condensers. Two sets of propellers are being supplied, a light set for ordinary summer use; the other set is specially designed for ice work. In each case the propellers are of the built-up type, with three blades. Steam is supplied at a working pressure of 180 lbs. per square inch by four single-ended cylindrical boilers, 12 ft. 9 in. in diameter and 10 ft. 6 in. long. A mechanical stoker system, with fan for air supply, will be fitted in Canada. In the stoke-hold there is an ash ejector fitted for discharging ashes overboard, in addition to two hand ash hoists. The naming ceremony was performed by Mrs. O'Grady Haly, wife of a former Major-General commanding the Canadian Militia. The illustration on page 613 shows the Lady Grey taking the water at the launching.

Lake Freight Matters

Our Winnipeg correspondent wrote on Sept. 14: The western crop is now practically safe and from what threshing returns are already available, the average per acre is fully as good, if not better, than last season, and provided there are no excessive rains while threshing is going on, the sample will grade very high, in fact, at least 75% of the total crop is expected by the grain trade to grade up to contract, which is No. 2 Northern. The movement from country points to the lakes is fully two weeks in advance of last season, and this will be of considerable benefit to the lake grain carriers, as this two weeks will mean from three to four millions of bushels of extra wheat moved over the lakes before the close of navigation, and with the additional tonnage added to the Canadian fleet during the past season, the movement should be more largely via Canadian ports than in the past. Of course, the eastern car supply plays an all-important part in fixing the route of the grain past the western lake terminals, and it will now be seen whether the eastern Canadian railways have profited by last fall's experience, to increase their equipment sufficiently to prevent any delay in discharging vessels at Georgian Bay ports, but the western grain trade is feeling very dubious on the matter, and is already making arrangements to bring in U.S. vessels to load via the Buffalo route. Owing to the continued prosperity of the U.S. ore trade, U.S. vessels are not as eager as in former years to enter the Canadian grain trade, and, as a result, any vessels that are offering are asking a very high range of rates, and as the Canadian owners have this competition largely out of the way they are also taking advantage of this condition of affairs to ask high rates, although they have nothing but the grain trade to depend on eastbound, and as a result as high as 2¼c. a bush. was paid for Georgian Bay tonnage for the last ten days of Sept., against a rate of 1½c. at the same time last season, and rates for first half of October from Fort William to Georgian Bay are as high as 3½c., against a 2½c. rate last fall during the same period. The outlook now is that lake rates will go as high as the all-rail basis east of Fort William, as shippers have no choice in the matter in the fall months, but must use the lake route, on account of the western railways only allowing a very small percentage of their cars to go east of the lakes while the wheat rush is on in the western country.

The name of the str. Cuba, official number 116,954, of Sarnia, Ont., has beed changed to Ionic to conform to the practice of the Northern Navigation Co. in having its steamers' names ending with the letters "ic"; and that of the steam yacht Kacymo, official number 107,750, of Kingston, Ont., has been changed to Wawa, by order-in-council.

Atlantic and Pacific Ocean Marine.

The C.P.R. Pacific Ocean mail steamers will not call at Victoria, B.C., on the outward trip from Vancouver as heretofore.

The S.S. Sokoto arrived at Montreal Sept. 18 from Great Britain, and sailed for ports in the West Indies and Mexico Sept. 20. She takes the place of the Angola, which was wrecked in July.

The C.P.R. intermediate steamers after leaving Liverpool, Eng., will call at Belfast, Ireland, instead of at Moville (Londonderry). The Lake Erie was the first steamer to make this call.

The C.P.R. Empress of India arrived at Vancouver, B.C., Sept. 17, making the trip from Hong Kong, China, in 18 days, 10 hours, including stoppages. This cuts off nearly a day from the former record established by the same vessel.

Capt. Walsh, Marine Superintendent of the C.P.R., has been inspecting the docking and other facilities at St. John, N.B., and Halifax, N.S., with a view of ascertaining which port should be made the terminus for the winter sailings.

The steamers of the recently established line between Vancouver, B.C., and New Zealand, are said to be receiving very little, if any, cargo at the Canadian end, and the freight received at New Zealand has not come up to expectations.

Capt. Nunan and Second Officer Miller, of the Allan Line S.S. Ionian, have been presented with silver medals and certificates by the Liverpool Shipwreck Humane Society, for rescuing the crew of the Norwegian barque Trio in mid-Atlantic in May.

The C.P.R. S.S. Monteagle, recently transferred from the trans-Atlantic to the trans-Pacific fleet, was blown ashore during a typhoon at Hong Kong Sept. 18. Later reports state that she was floated without having sustained any serious damage.

The officers of the trans-Atlantic steamers are unanimous in stating that the mail tender Rhodes, provided at Rimouski, Que., is utterly unfit for the service. She is slow, and the accommodation is not what is required to meet the present demands of the service.

Capt. Leslie, Kingston, Ont., has been looking over the stranded Allan Line S.S. Bavarian at Wye Rock, below Quebec, with a view to undertaking salvage operations. Wrecking plant was taken out to the stranded steamer Aug. 28, and subsequent reports state that it is intended to blow up part of the rock so as to facilitate the removal of the wreck.

The Dominion Line S.S. Ottawa, which reached Montreal Sept. 6, made the run from Liverpool, Eng., in seven days, the best run of the season from port to port, A good portion of the distance between Three Rivers and Montreal was traversed after dark, and it is claimed that the trip has demonstrated the practicability of navigating the St. Lawrence channel by night.

A movement has been started in Montreal to present a substantial testimonial to Capt. W. Stewart, who has just retired from active service. During his 37 years' service as master of vessels sailing out of Montreal to Great Britain, he has never lost a vessel or a passenger. He spent his entire service as master with the Canadian Shipping Co., and its successors the Beaver Line, Elder-Dempster Co., and C.P.R.

Reports from the stranded vessel Sept. 26 were to the effect that there was every possibility of the vessel being floated. From the work done up to that date it was found that the steamer's back had not been broken. If the salvage operations are finally successful, it is estimated that an expenditure of $500,000 will put the Bavarian in a thorough state of repair. The salvage operations are being carried out by the North American Wrecking Co.

It is a difficult question to say what is the record between Great Britain and Canada at the present time. The Allan Line S.S. Virginian arrived at Rimouski, Que., Aug. 23, in 6 days and 2 hours from Liverpool, Eng.; the C.P.R. S.S. Empress of Ireland reached Rimouski, Aug. 30, from Liverpool in 5 days and 22 hours. On the trip eastward the C.P.R. S.S. Empress of Britain recently made the trip to Liverpool from Quebec in 5 days, 12 hours, 15 minutes.

H. B. Roper, Chairman of the Dominion Steamship Co., one of the constituent companies of the International Mercantile Marine Co., was in Montreal, Sept. 18, consulting the local management with regard to placing additional steamers on the line. J. Thom, the local manager, said Sept. 18 that he was not in a position to give out details further than that the steamers have been ordered, and that they will meet the growing requirements of the mail and passenger trade between Canadian and British ports.

Steamship owners have taken a stand against the practice of men deserting, and several prosecutions have recently taken place at Montreal which should go a long way to put a stop to desertions. John Bishop, a seaman who left the Allan Line S.S. Victorian, was given three months' imprisonment, and Eric Olsen, a seaman who left the S.S. Borgested, under charter to the Dominion Coal Co., was given four weeks' imprisonment. Each man also forfeits all pay earned and the effects which he had left behind.

The Mexican Government has entered into a two years' contract with a British syndicate, represented by Capt. Worsnop, to operate a monthly steamship service between the west coast ports of Mexico and British Columbia, on the payment of a subsidy of $50,000 a year. The contract is subject to the approval of the Mexican Congress, and the granting of a subsidy of a similar amount by the Canadian Parliament. The company is ready to start its steamers as soon as the contract is approved of by the two parliaments.

The question of the amount of damages which the Allan Steamship Co. are entitled to receive on account of the collision of the German S.S. Albano with the S.S. Parisian in Halifax is being settled before the local admiralty court. The owners of the Albano contend that under the judgment they are not liable for any damages occurring after the collision; that the Parisian, which subsequently sank at her dock, should have been beached or docked, stern first; that the hole in her should have immediately been temporarily patched and the assistance of salvage steamers near at hand should have been secured.

The Alley Line S.S. Pondo arrived at Vancouver, B.C., Sept. 4, from New Zealand, after a trip of 30 days' duration. She got off her course somewhat on coming into port and got on a sandbar near Jericho, where she remained all night of Sept. 3. She floated off at high tide on the following morning. The Pondo is a steel screw steamer built at Sunderland, Eng., 1892, having the following dimensions: length, 310 ft.; breadth, 40.5 ft.; depth, 25.5 ft. She is fitted for water ballast; 2,741 tons gross and 1,764 tons register. She is fitted with triple expansion engines, cylinders, 24, 38 and 62 in. diameter, by 42 in. stroke, of 284 n.h.p.

D. E. Brown, C.P.R. Agent at Hong Kong, sailed on the Empress of China from Van-

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Arr.	Lowell	*7.29	p.m.,	*6.37 a.m.
"	Worcester	†9.04	"	*9.19 "
"	Boston	*8.15	"	*7.30 "

VIA G.T.RY., AND WHITE RIVER JCT.

Lv.	Montreal	*9.01	a.m.,	*8.40 p.m.
Arr.	Lowell	*6.11	p.m.,	*7.17 a.m.
"	Worcester	†9.04	"	*9.19 "
"	Boston	*6.55	"	*8.05 "

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Lv.	Toronto			*4.10 p.m.
"	Niagara Falls			*6.30 "
"	Buffalo	*4.30	a.m.,	*7.20 "
Arr.	North Adams	*1.08	p.m.,	*5.11 a.m.
"	Worcester	*4.55	"	*9.59 "
"	Boston	*5.20	"	*9.50 "

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"	"	5.00	"	"	119.85,	" "	40.81	" "	100.00
"	"	5.50	"	"	131.80,	" "	44.89	" "	110.00
"	"	6.00	"	"	143.80,	" "	48.98	" "	120.00
"	"	6.50	"	"	155.80,	" "	53.05	" "	130.00
"	"	7.00	"	"	167.80,	" "	57.16	" "	140.00
"	"	7.50	"	"	179.75,	" "	61.22	" "	150.00
"	"	8.00	"	"	196.70,	" "	65.28	" "	160.00

Purchasers who do not undertake to go into residence on the land are required to pay one-sixth of the purchase money down, balance in five equal annual instalments with interest at the rate of 6 per cent. per annum.

Interest at six per cent. will be charged on overdue instalments.

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B.C., Sept. 4. In an interview at Montreal on his way to the coast he is reported to have said: "I have no hesitation in saying that the C.P.R. will have four new Empresses on the Pacific ocean uniform in type and speed with the Empress of Ireland and the Empress of Britain. The company is laying its plans on that assumption now. There will be two more Empresses in the Atlantic service—four fast steamers at each ocean wing—that is what is bound to come. It may take six or seven years to achieve all this, but it will come." Whether Mr. Brown's prophecy will materialize or not time alone will show, but at the present time we are advised the C.P.R. has not settled upon any such programme.

Few people who have not travelled upon it, says a United States marine paper, realize the great length of the St. Lawrence River. Its mouth, commercially speaking, is the Strait of Belle Isle, between Newfoundland and Labrador, that being the channel commonly used by vessels sailing to and from Europe. It is 826 miles from this strait to Quebec, and 986 miles to Montreal. Montreal is therefore nearly as far from the ocean as the mouth of the Ohio River is from the Gulf of Mexico. Yet it is classed as an ocean port. Not only is it accessible to any ordinary ocean vessel, but the tides of the Atlantic come to within a few miles of the city. This long channel always has been navigable for vessels drawing not more than 10 ft. of water. Since 1888 the shoals between Montreal and Quebec have been dredged to a minimum depth of 27½ feet, making a submerged canal 39¼ miles long, which may properly be considered the first section of the Canadian canal system.

Maritime Provinces and Newfoundland.

Since May 1 there have been 99 vessels repaired at the marine railway at North Sydney, N.S.

The collector of customs at Weymouth, N.S., seized the schooner Beatrice for failure to report her arrival at St. Mary's Bay, N.S.

It is understood that the Imperial dockyard at Halifax, N.S., will be formally handed over to the Canadian Government early in Oct.

The str. Lady Glover, which has been laid up at the dry dock wharf, Halifax, N.S., for some years, has been sold to Quebec owners for the fishery business.

The St. John River str. Champlain, while on her regular trip Sept. 12, ran aground, and sustained considerable damage. She was towed to Indiantown, N.B., for repairs.

The Norwegian str. Elma, bound from Louisburg to St. John with coal, went ashore at West Baccaro, N.S., Sept. 3, in a bad position, and was lightened before she was got off.

The Island Tug Co.'s new str. Islander reached Charlottetown, P.E.I., from the builders' yard in Nova Scotia, Aug. 21. The engines are capable of making 10 knots an hour.

The Baines Hawkins Steamship Co. has purchased the str. Beatrice in Dublin, Ireland, to replace the str. Baines Hawkins, which foundered off Scattarie Island, N.S., in March.

The repair and maintenance of lighthouses, fog alarms, and buoys on the Newfoundland coast for the current year was provided for last session of the legislature by votes amounting to $68,393.

The Admiralty Court at Halifax, N.S., has given a verdict for the owner of the str. Havana, in its action against the str. Strathcona, by which the former was sunk in Halifax harbor. The amount of the claim is $35,000, but the damages are to be assessed in the usual way.

In connection with the proposed withdrawal of the Senlac from the route between St. John, N.B., and Halifax, N.S., calling at south shore points in Nova Scotia, the south shore merchants are discussing the advisability of engaging two or more sailing vessels of 100 tons, fitted with auxiliary power, to trade to Halifax.

The Atlantic Fish Co., Lunenburg, N.S., has had completed at Shelburne, N.S., a steamer which has been named the Atlantic. The dimensions of the new steamer are: length, 95 ft. keel; breadth, 18 ft.; depth of hold, 8 ft. She is fitted with compound engine, cylinders 10 and 20 in. diameter, by 16 in. stroke.

The Newfoundland Legislature at its last session passed an act providing for the appointment of an examiner and an assistant examiner of engineers, the latter to be the inspector of marine boilers for the Government, to conduct examinations and grant certificates for marine engineers. It is provided that no vessel registered in Newfoundland shall proceed to sea without a certificated engineer, the only exception being in the case of steamers of less than 20 n.h.p.

The Newfoundland Legislature last session voted subsidies in aid of steamships as follows: Allan Line, $9,734; Port-aux-Basques to Sydney, N.S., $20,280; occasional ocean service, $1,000; Bona Vista Bay, $9,100; St. John's and channel, $13,000; Fogo district, $4,375; Labrador, $18,000; Hamilton Inlet, $300; north-east coast, $33,250; south and west coast, $36,000; Notre Dame Bay, $9,100; Placentia Bay, $13,000; Belle Isle Straits, $9,600; Trinity Bay, $9,100.

The Canada Atlantic and Plant Steamship Co.'s report submitted at the annual meeting held at Halifax, N.S., Aug. 27, showed that the past financial year had been a very satisfactory one. Following are the officers and directors for the current year: President, A. W. Perry, Boston, Mass.; Vice-President, McC. Grant, Halifax; other directors: H. G. Perry, Boston, Mass.; H. McInnes, W. Mitchell, Halifax. Secretary and Eastern Manager, H. L. Chapman, Halifax; Auditor, R. C. Verner, Halifax.

The Court investigating the stranding of the str. Mystic, July 9, was composed of Commander E. B. Tinling, Capt. W. J. Harrison, and Capt. N. Hall, and gave a decision as follows: That the responsibility of the stranding of the str. Mystic rests on Pilot Pierre Pepin. We exonerate the captain from all blame regarding the casualty that happened to the Mystic, in the Beaujeu channel, on July 9. By virtue of the power vested in us by the Wreck and Casualty Act of 1901, we hereby impose a fine of $250 on Pilot Pierre Pepin, licensed pilot, for his want of judgment in causing the stranding and injury to the Mystic, the said fine to be paid in five monthly instalments of $50 each.

Province of Quebec Marine.

The Quebec Steamship Co. has sold its str. Fontabelle, formerly trading between New York and the West Indies.

The depth of water in Montreal harbor, Sept. 4, was 27 ft. 2 in., against 28 ft. 4 in. on the same day, 1905, and 29 ft. 6 in. Sept. 4, 1904.

The Quebec Harbor Commissioners have passed a resolution urging upon the Dominion Government the necessity of constructing a new graving dock at that point.

The agents of M. Menier, owner of Anticosti Island, handed over to the Minister of Marine, Sept. 19, the deeds of two lighthouses which have been built there.

T. H. Oliver, K.C., who died at Quebec recently, was son of the late Thos. Oliver, shipbuilder, and was himself engaged in the same business until the decline of wooden shipbuilding led him to turn his attention to the law.

According to statements made in Montreal, it is understood that Hon. J. I. Tarte, formerly Minister of Public Works, will be appointed Chairman of the commission to be appointed by the Government to have charge of Montreal harbor.

The Department of Marine has awarded the contract for the removal of the wreck of the str. Protector, lying sunk on Bar Point, in the entrance of the Saguenay River, Que., to the St. Lawrence Floating and Wrecking Co., of Montreal.

The Richelieu and Ontario Navigation Co.'s str. Picton, in trying to avoid a tow of barges in Lake St. Louis, near Lachine, Aug. 30, went aground. She was towed off Sept. 3, and was put in dry dock for repairs. She was not at all seriously injured as the result of the accident.

Jas. Shearer, who died at Montreal Sept. 13, aged 84, was engaged for many years in shipbuilding at Montreal, building many of the steamships which ran on the St. Lawrence and Ottawa rivers. He also originated the Shearer scheme for the improvement of harbor improvement for the prevention of the flooding of cities.

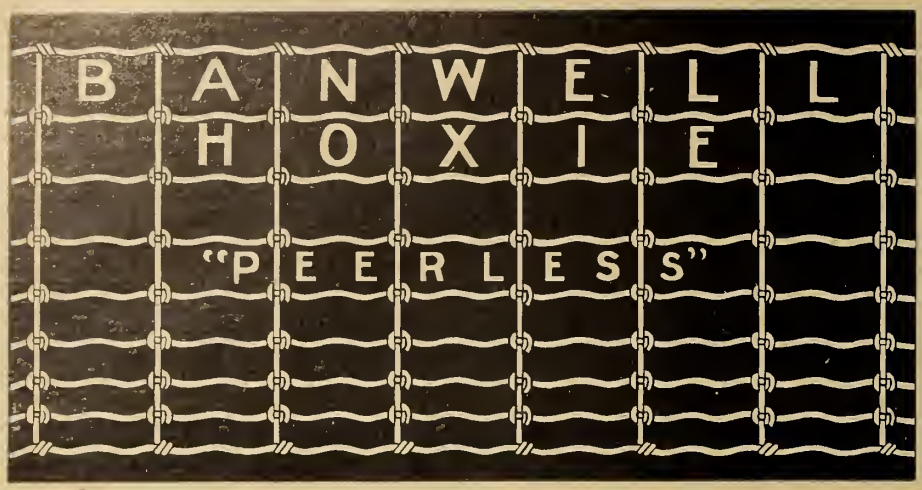
The North American Wrecking Co. has been incorporated under the Dominion Companies' Act, with a capital of $60,000 and offices at Montreal, for the purpose of carrying on a general wrecking and salvage business in Canada and elsewhere. The company may purchase or charter steam and other vessels, lease or build wharves, docks, etc. The provisional directors are: D. Armour, E. F. Surveyor, E. M. McDougall, advocates of Montreal, and H. W. Norton, secretary, St. Louis, Que.

T. Meaney, of the North Shore Power, Ry. and Navigation Co., Seven Islands, Que., speaking of the lack of facilities for handling cargoes at Quebec, said his company had to send over 500 tons of machinery to Montreal in order to have it put on board vessels for Seven Islands because there was not a crane to handle the packages. He was also compelled to pay wharfage charges at Quebec, which he would not have to pay if cranes were provided. Cranes would do the work in a few hours, which it now took 20 men a very long time to do.

The Minister of Marine, who recently completed a trip of inspection of the aids to navigation in the St. Lawrence, said on his return to Ottawa, he found that a few lights and foghorns were required at some points, but on the whole things are most satisfactory. Admiral De Peyrere, of the French fleet, told him at Quebec that the St. Lawrence was as well lighted as any river that he knew of. In spite of all that was done to improve the St. Lawrence route Lloyd's continue to discriminate against that route and in favor of Boston, Portland and New York.

The Hamilton str. Dundurn ran into the upper gates of the Lachine Canal lock no. 4, Aug. 28, and caused the flooding of a number of wharves and factories. Sufficient work had been done to enable small vessels to pass through the old locks (the 9 ft. navigation) Aug. 29, and the 14 ft. locks were reopened Sept. 1. A number of vessels were tied up in the canal in consequence, and some of the ocean-going steamers did not get their full cargoes. The Belding-Paul Co., whose factory was among those flooded by the overflow of water, is claiming $8,000 damages from the owners of the Dundurn.

F. W. Cowie, Superintendent Engineer of the St. Lawrence ship channel work, Sept.



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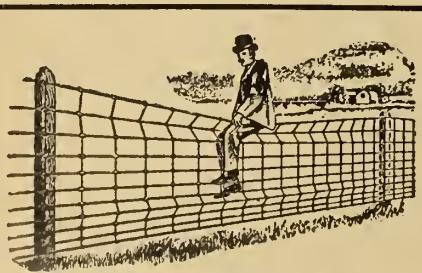

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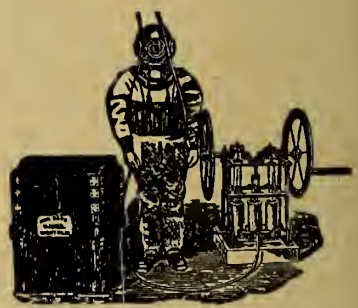

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6, explained to some members of parliament and others the work being done by the newly purchased dredge Galveston. The dredge is operating at St. Thomas shoals, which cover a distance of 5½ miles, and the Beaujeau banks, off Crane Island, having a length of 1½ miles. These shoals have become a very serious obstruction to navigation during these days of deep-draught vessels. The water at low tide at these locations in the River St. Lawrence below Quebec measures only 24 ft., while the depth is from 38 to 40 ft. at high tide, and vessels passing have to wait for high water before venturing over the ground. It is estimated that to make a channel 30 ft. deep and 1,000 ft. wide through the seven miles of riverway, 4,000,000 cubic yards of sand and clay material will have to be dredged.

Ontario and the Great Lakes.

Capt. J. Cook, of the str. Argyle, was fined $50 and costs, at Whitby, Ont., Aug. 28, for illegally selling liquor on board.

The Charlton Lumber Co.'s tug Balize, struck on a rock near Little Detroit Passage, Sept. 2, and sank. The crew escaped to the shore in small boats.

The Hamilton str. Dundurn and the Montreal Transportation Co.'s barge Cornwall collided in the Soulanges canal, Sept. 14, the latter being sunk.

The new steamer which the O'Connor Steamboat and Hotel Co. placed on Temagami Lake recently, is 110 ft. in length, and is licensed to carry 300 passengers.

The low water and the presence of sandbars at the mouth of Rainy River, caused the str. Keenora to be withdrawn from the service between Kenora and Fort Frances, Ont., Sept. 3.

It has been arranged to open a nautical school at Collingwood, Ont., during the winter, and it is said that the instructor will be Capt. G. C. Coles, Lloyd's inspector, at that port.

The International Waterways Commission resumed its sittings at Chicago, Ill., Sept. 25, when the effect of the Chicago drainage canal on the level of the Upper Great Lakes was discussed.

The Trent Valley Navigation Co.'s str. Empress ran aground near Juniper Island, Stoney Lake, Ont., Aug. 31, but was got off the same evening without having sustained material damage.

The Algoma Central Steamship Co.'s str. Monkshaven, which was driven ashore at Pie Island, Thunder Bay, in Nov., 1905, has been floated and towed to Duluth, Minn., where repairs will be made.

A contract has been let by the Department of Public Works to the Canadian Northern Coal and Ore Dock Co. for the construction of a temporary pile breakwater at Port Arthur, Ont., at a cost of $13,000.

The St. Catharines City Council has appointed a committee to report upon how best to obtain some benefit from the Welland Canal, and put forward an application for the construction of a turning basin there.

The str. Stranger, A. Dupont, Kingston, Ont., owner, carrying freight and passengers' has been put on a run from Kingston to Smith's Falls, calling at intermediate points on the Rideau Lakes, making two trips a week each way.

Capt. C. McIntosh, who died at Detroit, Mich., Sept. 11, was one of the best known of the masters of sailing vessels on the Upper Lakes. In 1904 he was in command of the City of the Straits, on the Windsor-Sault Ste. Marie run.

W. A. Wiggins, Sarnia, Ont., has been appointed receiver of wrecks for the district embracing all the waters of Lake Huron and the St. Clair River, in Canada, from the north limit of Bosanquet township to the southerly limit of the town of Sarnia.

The Superintendent of the Canadian Canal at Sault Ste. Marie recently refused to lock the U.S. str. Zimmerman, on the ground that her disabled condition was a menace to the inavigation and of the lock and canal. An investigation has been ordered.

The report of the engineers upon the feasibility of the construction of a ship canal along the Ottawa Valley to Mattawa,thence across to Lake Nipissing and then to the Georgian Bay, along the Spanish River, will be made to the Dominion Parliament next session.

The new channel at St. Clair flats was opened for navigation Sept. 3. It is situated west of the present channel and will be used exclusively for down-bound vessels, the up-bound vessels using the existing channel. The new cut is 300 ft. wide and 20 ft. deep.

A large wooden scow was recently launched at Collingwood, Ont., for the Great Lakes Dredging Co., Port Arthur, Ont. The scow is 120 ft. long, 60 ft. wide, and is of the spoon bow type. On being towed to Port Arthur the derricks and other fittings were put on board.

The new str. Algonquin, of the Huntsville, Lake of Bays and Lake Simcoe Navigation Co., has been placed in service. She is licensed to carry 475 passengers, and has a speed of 16 miles an hour. Capt. J. A. Fraser is in command, and the chief engineer is E. Goldthorpe.

The str. City of Montreal in backing out from her wharf at Kingston, Ont., Sept 7, ran on a shoal in the centre of the harbor, but was subsequently got off without damage. The removal of the shoal in the centre of such an important harbor as Kingston, should be insisted upon by marine men.

The Department of Marine has declined to accede to the application of the Kingston City Council, that an inspector be appointed at that port to superintend the loading of freight cargoes. The application was made in view of the loss of vessels and lives that have been caused by alleged overloading.

Although the new car ferry steamer Ashtabula, of which the C.P.R. is one of the railways interested as owners, has been running between Ashtabula, Ohio, and Port Burwell, Ont., she had not been given her speed test, we were advised Sept. 12, owing to full loads of cars not being obtainable.

The tug Harvey Neelon of St. Catharines, Ont., was burned Aug. 23, while steaming between Port Arthur and Fort William, Ont. The steamer, which was valued at $7,000, was built at Port Dalhousie, Ont., 1876, and was of 47 tons register, with engines of 64 n.h.p. Her dimensions were: length, 74 ft.; breadth, 16.6 ft; depth, 7.9 ft.

The Montreal Transportation Co.'s str. Rosemount, with coal for Fort William, Ont., ran on the rocks, Sept. 12, 12 miles below Detour Lighthouse, and had to have a portion of her cargo lightered before she was released. The accident was caused by the thick smoke from forest fires in the vicinity, which covers the surface of Lake Huron.

J. Langstaff, Thornhill, Ont., is associated with New York people who propose asking the Ontario Legislature to charter a company to cut a canal from Georgian Bay to Lake Ontario. The company proposes in connection with the canal to reclaim 25,000 acres of marsh lands on the line of the western branch of the Holland River. The proposal has been endorsed by some of the municipalities in York county.

The U.S. passenger str. Iroquois was refused permission to land at Kingston, Ont., on a Sunday recently, and the company cut Kingston out of the list of stopping places on the run between Lewiston and Alexandria Bay, N.Y. The matter has been taken up with the Dominion Government by the U.S. Consul at the request of the Government at Washington, with a view of an arrangement being made by which the steamer may land at Kingston on Sundays, when she goes on her route again in 1907.

The Canadian Coal and Navigation Co. has been incorporated under the Ontario Companies' Act, with a capital of $500,000 and offices at Tillsonburg, Ont, to search for, mine, manufacture, acquire, make merchantable, refine, carry, transport, store, handle, sell and deal in coal, coke, wood, oil, gas, fuel (natural and artificial), timber, lumber, ores, metals, minerals and substances and the manufactured product of all, each and every of the above and of combinations of any of the same, with incidental and subsidiary powers. The provisional directors are: G. W. and E. V. Tillson; E. C. Jackson, V. A. Sinclair, S. H. Beets, and C. H. Denton, of Tillsonburg, Ont.

The improvement work for which the Boone Dredging Co. has the contract at the Upper entrance to the Canadian canal at Sault Ste. Marie, Ont., consists of the removal of the Vidal shoals, which have been the cause of considerable trouble ever since the opening of the canal. The upper channel entrance to the canal will have a uniform width of 500 ft. It was 250 ft. wide, the improvements thus doubling it and giving a depth at lowest water level of 21½ ft. Another improvement has recently been made at the upper entrance, viz., the extension of the south pier a distance of 800 ft. This pier eliminates much of the effect the rapids had on boats entering the canal, acts as a breakwall, and affords dock accommodations for vessels.

The Minister of Railways and Canals has completed an inspection of the Trent Valley canal, and some portions of the route of the uncompleted portion. The route is open from Peterborough to Lake Simcoe for barges of 8 ft. draught, and the work at this end remaining to be done is to deepen the Severn River to the Georgian Bay at the points where there is less than 8 ft. of water. It is expected that this will be completed in 1908. The Dominion Parliament has voted a sum for rendering the Holland River navigable from Newmarket to Lake Simcoe, which would bring the Trent canal system to a point 30 miles north of Toronto. The surveys at the lower—or Lake Ontario outlet—are still in progress, from Trenton and Port Hope.

Three new steamship companies have been incorporated under the Ontario Companies' Act, with offices at Hamilton, Ont., of which the managers will be R. O. and A. B. Mackay, of that city. The Golspie Steamship Co., with a capital of $50,000, will own the steamer of that name which was purchased in the United States in 1904, the provisional directors being: R. O., A. B. Mackay, F. A. Magee, W. Magee, jr., W. G. Walton. The Dundee Steamship Co., with a capital of $100,000, has as provisional directors R. O. Mackay, W. Southam, J. A. Milne, D. Brown, and will operate the Dundee, a new steamer being built in Great Britain. The Winona Steamship Co., with a capital of $100,000, has as provisional directors: R. O., A. B. Mackay, J. A. Milne, D. Brown and E. J. Jordan, and will operate the str. Winona, which has just arrived on the Great Lakes from Newcastle-on-Tyne, where she was built. The Winona is a bulk freighter with engines aft, her capacity being 125,000 bush. Her dimensions are: length, 258 ft.; breadth, 43.6 ft.; depth, 24 ft. The Dundee has been completed at Dundee, Scotland, and is expected in Hamilton in Oct. She is a duplicate of the Glenellah, built in 1904.

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The Department of Public Works, Ottawa, has let the contract for the construction of a lock and dam on the Red River at St. Andrew's Rapids, Manitoba, to Quinlan and Robertson, Montreal.

The Imperial Fish Co.'s str. Wolverine lost her rudder owing to grounding on a sandbar near Selkirk, Man., Aug. 28. The steamer is in the dock undergoing repairs, it having been found, upon examination, that her hull is badly strained.

A. R. Dufresne, of the Department of Public Works, has completed an inspection of the Red River in the vicinity of Winnipeg, Man. The inspection showed a number of obstructions to navigation, and Mr. Dufresne said he would recommend that these be removed, and that other improvements be made.

News was brought to Selkirk, Man., Aug. 29, by the str. City of Selkirk, of the foundering during a storm on Sunday, Aug. 26, of the str. Princess, near Swampy Island, on Lake Winnipeg, and of the loss of five lives. The Princess left Poplar Point, 200 miles up the lake, on the afternoon of Aug. 25, with a full cargo, and ran into the storm the same evening. About half-past one o'clock on Sunday afternoon the engines had to be stopped; at three o'clock the engineers and firemen had to abandon the engine room owing to the water, and about an hour later the vessel sank. Sixteen of the crew and passengers were saved in the vessel's boats, and were picked up on Aug. 27 by the City of Selkirk. Capt. J. Hawes, a stewardess, a deck hand and two passengers were drowned. The Princess was built at Winnipeg, Man., 1871, and rebuilt at Selkirk, Man., 1900; her dimensions being: length, 146.5 ft.; breadth, 25 ft.; depth, 9.6 ft. She was 405 tons gross, and 229 tons register, and was provided with engines of 33 n.h.p. An investigation into the cause of the loss of the steamer has been made by Commander O. G. V. Spain, Wreck Commissioner.

B.C. and Pacific Coast Marine.

The repairs to the str. Camosun, which recently struck a rock at the entrance to Prince Rupert harbor, have been completed at Esquimalt, B.C., at a cost of $9,000.

The Kootenay Railway and Navigation Co.'s str. International has been replaced on her run on Kootenay Lake, after being thoroughly overhauled and improved at the Mirror Lake shipyard.

The Dominion Government has appointed Judge Alexander Henderson, of Vancouver, B.C., to be a commissioner to investigate and report upon the conduct of D. McPhaiden as shipping master for the port of Vancouver.

The Vancouver Dredging and Salving Co. has been incorporated under the British Columbia Companies' Acts, with a capital of $25,000 and offices at Vancouver to engage in dredging, towing and salvage operations.

Unconfirmed reports from the Pacific Coast state that the C.P.R. proposes to have two steamers constructed in the U.S. to run between Seattle, Wash., and Skagway, Alaska. At present the C.P.R. runs steamers from Vancouver and Victoria, B.C., to Skagway, and gives a service to Seattle, but cannot do a through business between the two United States ports owing to the law which prohibits any foreign ship carrying passengers touching at two U.S. ports.

The Court of Exchequer at Ottawa has before it an action respecting the str. Camosun. The action was originally brought in the Admiralty Court for the district of British Columbia, by Bow, McLachlan & Co., Paisley, Scotland, who built the steamer for the Union Steamship Co., of British Columbia. The price, £28,000, was to be paid in instalments, and the first not being paid action was taken to collect the whole amount. The steamer was arrested, and subsequently released on the usual bonds being entered into. The Union Steamship Co. put in a counterclaim for defective work and materials amounting to £3,638, but the local judge struck it out. The appeal to the Exchequer Court is to have this counterclaim reinstated.

The new steamer for the C.P.R.'s Victoria-Alaskan service, was launched at Esquimalt, B.C., Sept. 1, and was christened Princess Royal by Mrs. Marpole, wife of R. Marpole, General Superintendent Pacific Division, C.P.R. The new steamer is built of wood, and will be propelled with a single screw. Her dimensions are: length, 227 ft. between perpendiculars; breadth, 40 ft.; moulded depth, 17 ft. There are spacious freight holds, and two tiers of deck houses in which are staterooms, saloons, etc., with a large observation saloon forward. The new steamer is larger than the Princess Beatrice, but not so large as the Princess Victoria, and will be fitted out in much the same style. She will be equipped with triple expansion engines, capable of making 15 knots an hour; steam being supplied by three Scotch boilers. The engines and boilers were built in Scotland, and had been delivered when the launching took place.

Notices to Mariners.

The Department of Marine has issued the following notices:

No. 92. Aug. 8.—Nova Scotia — 217. South coast, Halifax harbor, sunken wreck. 218. Cape Breton Island, east coast, St. Ann harbor, Munro point, lighthouse established.

No. 93. Aug. 11.—Ontario—224. Lake St. Clair, off mouth of Thames River, gas buoy established.

No. 94. Aug. 13.—Quebec—227. Gulf of St. Lawrence, Magdalen Islands, Bryon Island, change in character of light.

No. 95. Aug. 17.—Newfoundland—Labrador—228. Belle Isle, north end, fog alarm established.

No. 96. Aug. 18.—British Columbia—229. Chatham Sound, Prince Rupert harbor (Tuck Inlet), Kestrel rock located and buoyed.

No. 97. Aug. 21.—Quebec—232. Ottawa River, Carillon and Chute a Blondeau, range lights. Ontario—233. Georgian Bay, Middle point, front range lighthouse moved. Manitoba—234. Lake Winnipeg, Cox reef, light improved.

No. 98. Aug. 24.—Quebec—235. River St. Lawrence, ship channel between Quebec and Montreal, Ile a la Pierre to Sorel, gas buoys established, changes in buoyage. 236. River St. Lawrence, ship channel between Quebec and Montreal, St. Anne de Sorel, range lights established. 237. River St. Lawrence, ship channel between Quebec and Montreal, Ile du Moine, range lights established.

No. 99. Aug. 30.—New Brunswick—238. Bay of Fundy, Grand Manan Island, south coast, White Head ledges, buoy established. 239. Bay of Fundy, St. John harbor, Partridge Island, can buoy replaced by gas buoy.

No. 100. Aug. 31.—British Columbia—245. Chatham, Port Simpson, Dodd passage, Cunningham passage, and Big Bay, uncharted shoals, hydrographic notes.

No. 101. Sept. 4.—British Columbia—246. Vancouver Island, west coast, Cape Beale, temporary light.

No. 102. Sept. 5.—Quebec—247. River St. Lawrence, ship channel between Quebec and Montreal, Cap Madeline lower range, new lighthouse and alignment. 248. River St. Lawrence, Sorel, range lighthouse rebuilt.

No. 103. Sept. 7.—Nova Scotia—249. Bay of Fundy, Lurcher shoal, lightship replaced on her station.

No. 104. Sept. 7.—Ontario—251. Lake Huron, east side, Saugeen River, back range lighthouse moved. Manitoba—252. Lake Winnipeg, George Island, lighthouse established.

Examinations for Masters and Mates.

The Department of Marine, in view of the fast increase of traffic by water, has thought it advisable to demand from prospective candidates who intend to command Canadian registered vessels, a higher knowledge of the principal elements of their profession. A booklet has been issued by the Department, in which, in a condensed but explicit form, details are given, showing what are the subjects upon which a candidate will be examined for certificates as mate or master of coasting, inland and minor waters, for tugs and passenger tugs. At the beginning of the pamphlet, a few pages are devoted to general rules; next follows a synopsis of subjects according to the various grades, then a certain space is devoted to the rules for estimating service, and the way in which the examinations are to be conducted. Fifty questions on the rules of the road, which comprise every phase of that part of seamanship, are given; the rules of the road in verse are given as a fit ending to the fifty questions. The method of sight test is fully explained and the concluding pages contain the International rules of the road, which are in force in all Canadian waters other than the Great Lakes and Georgian Bay, their connecting waters and tributary waters, and the River St. Lawrence as far east as the lower exit of the Lachine canal and the Victoria bridge at Montreal; and the Great Lakes rules of the road, in force in the waters exempted from the area in which the International rules have to be observed. The booklet is a very handy and useful one, and should be found in the hands of all navigators, as well as prospective ones. It is published in English and French, and is supplied by the Chief Examiner of Masters and Mates, Ottawa, Ont., at 25c. per copy.

The new rules came into operation July 1, and replace those which have been in force since May, 1894.

The British man-of-war Dominion, which grounded in the Bay of Chaleur, when coming up to Quebec recently, left that port Sept. 1 and went to Bermuda, where she was put on dock for repairs.

The Norwegian ship Gjoa has reached Behring straits from the Atlantic ocean. The vessel, in command of Capt. R. Amundsen, left Christiania, Norway, June, 1903, for the purpose of looking for the north-west passage, and making scientific observations. In the summer of 1905 he established a base on King William's Island, where he later reported that he had located the true magnetic pole. The Gjoa went into winter quarters near the mouth of the Mackenzie river, and Captain Amundsen left there on Aug. 13 for a trip over the land to announce his success. He travelled by dog sled and reached Fort Egbert, Eagle City, Alaska, on Dec. 5, whence the news of his discovery was sent out. He announced at the time that he would return to the Gjoa in the spring by way of Behring strait and sea, making geodetic observations on the way. The Gjoa set out early in the summer for the 1,000 mile trip to the strait.

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Marine Notes from the Twin Ports.

Our Port Arthur correspondent wrote September 6: "The grain shipments out of the twin ports for the latter part of Aug. were very light, the total shipments for the whole month aggregating 2,732,731 bush. The total shipments to date for the season of 1906, of the 1905 crop, are 21,580,191 bush., an excess of 10,782,597 over the shipments for the season of 1905 to the same date. There is an increase of 7,881,181 bush. of wheat; 2,715,669 bush. of oats, and 192,279 bush. of barley, the only item of decrease being that of flax, which is 6,552 bush. below the quantity shipped to the same date last season.

Great delay has been experienced in the loading of vessels during the past six weeks, owing to the fact that the cargoes had to be patched up of so many different grades, more of this kind of thing being done this season than heretofore. The whole burden of the loss of this time to vessels falls on the vessel owner, and it does not seem as if this were right, as the only one who benefits by these patched up cargoes is the shipper, and he should certainly bear the cost of the extra time, expense, and trouble of putting these cargoes together.

New wheat of the crop of 1906 has been arriving for some days. We are receiving now from 70 to 90 cars a day, and it is expected that the lake movement of this new grain will begin within the course of a week or ten days, and very heavy business is looked forward to from now on to the close of the season of navigation.

The westbound movement of package freight has never before been so heavy in the history of Canadian lake trade. All package freight steamers arriving at the head of the lakes have full loads, and all of the regular lines are engaging outside steamers to take care of their surplus freight.

A wrecking company is engaged in wrecking the S.S. Monkshaven, which went ashore on Angus Island, off the mouth of Thunder Bay, in the terrific storm of Nov. 28 last. All of her deck machinery has been removed, the holes in the hull patched up, and they expect to have her afloat in a few days.

Captain N. Gagnier performed a very successful feat of wrecking, in raising the tug Alfred W, that sunk in 60 ft. of water near Angus Island in June last.

The S.S. Pomeranian Collision.

An investigation into the collision of the S.S. Pomeranian with the wharf at Father Point, Que., was held at Montreal July 19 and Aug. 27, by Commander O. G. V. Spain, R.N., assisted by Captains Archibald Reid and J. J. Wiley. Judgment was delivered on Aug. 30 as follows:

"The S.S Pomeranian, commanded by Capt. Jas. Harrison, who holds a master's certificate, Board of Trade, with Pilot Arthur Baquet, a branch pilot for and below Quebec Harbor, left Quebec at 2.45 p.m. on June 9, and collided with the wharf at Father Point about 3.44 a.m. on June 10. By the evidence it is clearly proven that more or less dense fog prevailed all along the south shore, and intermittent banks of fog were of frequent occurrence during the night. Notwithstanding the prevalence of this fog, and the knowledge that a number of ocean steamers outward bound were due to pass Father Point on June 10, the fog-signal at that place was not sounded from 1.15 am. until 3.45 a.m., a period of 2 hours and 30 minutes. The evidence further shows that the engineer in charge of the fog-alarm was called at 3 a.m. by the watchman, and notified that fog was imminent, but it was 3.45 a.m. before the first sound was emitted from the diaphone, and this was after the Pomeranian had struck the wharf. All the witnesses and the fog-alarm keeper himself, agree that there was fog, but that no means were taken to warn approaching vessels either by bomb or otherwise, although one witness stated that he could see the topmast heads of the Pomeranian some seven or eight minutes before she struck, the rest of the vessel being entirely enveloped in dense fog.

The court therefore considers that the primary cause of the casualty was the fog-horn at Father Point not being in operation, which, however, does not altogether exonerate the master and the pilot of the ship, and the court considers they are deserving of censure for maintaining such a high rate of speed, and steering such fine courses in the existing conditions of weather. The engineer's log shows that the vessel was kept at full speed, although fog was prevalent, until 3.40 a.m., when she was stopped; at 3.43 a.m., she was put full speed astern, and she struck the wharf at 3.44 a.m., so that at the time of striking the Pomeranian would have lost very little of her way. Passing the Rimouski buoy so close, and not seeing Father Point light on the wharf, should have been sufficient warning to induce them to reduce speed and haul the vessel out. Captain James Harrison and Pilot Arthur Baquet are hereby censured and warned to be more careful in future.

R. and O. N. Co.'s New Steamers.

The Richelieu and Ontario Navigation Co.'s str. Quebec was taken to the company's yard at Sorel, Que., Aug. 27 and dismantled. The hull was subsequently taken to the Government dry dock at Levis, where she will be lengthened by an addition of 25 ft. On returning to the company's dock at Sorel new upper works similar to those of the Montreal will be erected. The Quebec is an iron paddle, single bottom, river passenger steamer, built at Sorel, 1865; length, 282.6 ft.; breadth, 34 ft.; depth, 11.7 ft. Her gross tonnage is 2,656 and her register tonnage 1,237 tons.

The new steamer which the Richelieu and Ontario Navigation Co. is having built at Toronto for the run between Prescott, Ont., and Montreal, going through the St. Lawrence River rapids, will be 240 ft. long over all, with a breadth of 41 ft., the extreme width over wales being 43½ ft. The draught when loaded is not to exceed 6 ft. The bottom of the hull to the half turn of bilge is to be sheeted with British Columbia fir or rock elm. Her design is of the day boat excursion type, but provision will be made for about 94 staterooms, at least about 4 of which will be parlor rooms, and have bathrooms. The hold will contain quarters for deck hands, firemen and the entire crew with the exception of captain, mates, chief engineer, steward and cabin maids. The kitchen and messroom also to be in the hold. There will also be in the hold coal bunkers, boiler room, engine room and a gentlemen's cafe. Coal bunkers to be arranged for filling from the outside. The main deck will have windlass room and toilet rooms for crew, pantry, dining room, entrance hall for passengers, baggage space, enclosure around smokestacks and engine room uptakes. On the promenade deck there will be a large observation space forward for passengers. Next after this will be a cabin for sheltering passengers in stormy weather. The space aft of this cabin, to the stern of the boat, will be devoted almost entirely to stateroom accommodation for passengers, with merely a small cabin at the after end of this deck just forward of a small open passenger space at the extreme stern . The next, or hurricane deck, will be left entirely open, that is with no obstruction whatever, except for a small cabin with staterooms, and will be used as an observation deck for passengers when running the rapids. This deck to be covered with a light awning roof, and the deck to be extended to the stern of the boat. The pilot house and texas will be on this deck, the pilot house to be sufficiently raised for handling the boat with passengers in front of the pilot house. The captain's bridge may be provided in the awning roof which will not extend much forward of the pilot house. Boats are to be carried on this deck. The engines will be of the triple expansion, twin-screw type, each engine to have four cylinders working on four cranks; to be jet-condensing with independent air pumps. Boilers to be of the Scotch or cylindrical return tubular type to pass Canadian Government inspection for 180 lbs. working pressure of steam; to be fitted for economy with a hot draft system.

The size of the engines and boilers to be sufficient for the guaranteed performance of the steamer as specified, namely 18 miles per hour. The auxiliary machinery will include general donkey and fire pump, steam windlass, stockless anchors, etc. Hot draft fan with direct connected engine, fresh water pump and sanitary pumps, ash ejector; a combined steam and hand stearing gear of the most efficient type, and suitable for the quick handling of boat necessary in the rapids. The steamer will be lighted by electricity, the plant consisting of two direct-connected multi-polar generating sets of sufficient capacity.

Sault Ste. Marie Canals Traffic

STATISTICAL REPORT OF LAKE COMMERCE.

The following commerce passed through the Sault Ste. Marie canals in Aug., 1906:

Articles			Canadian Canal	U.S. Canal	Total
Copper	Eastbound	Net tons	995	8,381	9,376
Grain	"	Bushels	2,404,817	3,068,845	5,473,662
Building stone	"	Net tons	....	832	832
Flour	"	Barrels	441,310	436,230	877,540
Iron ore	"	Net tons	381,353	4,847,206	5,228,559
Iron, pig	"	Net tons	....	3,248	3,248
Lumber	"	M.ft.B.M.	7,825	115,781	123,606
Silver ore	"	Net tons	....	....	....
Wheat	"	Bushels	2,052,571	2,317,018	4,369,589
General merchandise	"	Net tons	19,692	9,173	28,865
Passengers	"	Number	6,962	5,650	12,612
Coal, hard	Westbound	Net tons	12,830	179,096	191,926
Coal, soft	"	Net tons	192,476	971,438	1,163,914
Flour	"	Barrels	180	8,670	8,850
Grain	"	Bushels	....	....	....
Manufactured iron	"	Net tons	3,738	27,958	31,696
Salt	"	Barrels	13,612	55,266	68,878
General merchandise	"	Net tons	67,981	58,941	126,922
Passengers	"	Number	5,418	6,015	11,433
Freight:					
Eastbound		Net tons	583,320	5,234,826	5,818,146
Westbound		Net tons	278,991	1,246,590	1,525,581
Total freight		Net tons	862,311	6,481,416	7,343,727
Vessel passages		Number	855	2,385	3,240
Registered tonnage		Net tons	868,793	4,859,969	5,728,762

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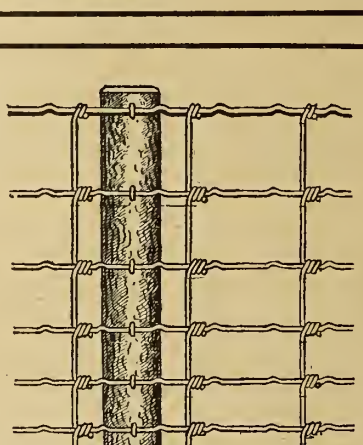

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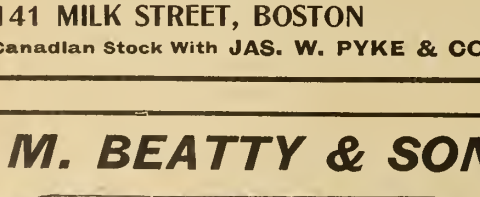

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Among the Express Companies.

W. J. Upton, who is charged with stealing $850 from the Dominion Ex. Co. at Yorkton, Sask., was arrested in London, Eng., and on Sept. 3 an order was granted for his extradition to Canada.

At a conference of the new Interstate Commerce Commission at Washington, D.C., to consider the application of the railroad and express companies for an extension of time in which to submit schedules, no conclusions were reached. It is understood that there is some sentiment in the body favorable to making concessions to the express companies. W. H. Burr, Auditor, Dominion Ex. Co., Toronto, represented the Western Ex. Co., which is its U.S. connection.

Telegraph and Cable Matters.

The C.P.R. Telegraph Department has opened offices at Sinclair, Man.; Grayson, Dubuc and Welwyn, Sask.

F. Mahon, for some years local manager C.P.R. telegraphs at Quebec, has been transferred to the head office staff in Montreal.

The Western Union Telegraph Co. will hold a special meeting in New York Oct. 10, to authorize the issue of $25,000,000 redeemable 4% gold bonds. Stockholders will be asked to subscribe for an immediate issue of $10,000,000 of this amount.

Cable connection has now been made with Iceland, and the C.P.R. advertises a 55 cent a word tariff from Winnipeg, Man., in which district there is a large Icelandic population. Prior to the laying of the cable messages were delivered by steamer from Scotland.

Capt. H. A. Moriarty, C.B., who died at Manor Park, Essex, Eng., Aug. 18, aged 92, was commander of the Agamemnon, which, with the U.S. frigate Niagara, laid the first Atlantic cable in 1857, and also of the Great Eastern which laid the second and third cables in 1865 and 1866.

The Australian Government has announced that no special privileges had been made, or were contemplated, to be granted to the Eastern Extension Cable Co. This is the company which is the only competitor of the all-British Trans-Pacific Cable, in which Canada, Australia and Great Britain are partners.

An International Wireless Telegraph Conference is to be held at Berlin, Germany, in Oct., at which one of the questions to be discussed will be that of compulsory intercommunication between steamships carrying wireless apparatus regardless of the system used.

G. Marconi paid a visit to Montreal, Sydney and Glace Bay, N.S., at the end of Aug., in connection with the wireless telegraph station at the latter place. He sailed from New York on his return to England, Sept. 11, and conducted experiments with the English and Canadian stations on the trip across the ocean. He said the stations would be completed and ready for the transmission of messages across the Atlantic, Dec. 1.

The Newfoundland Government telegraph system has its chief office in St. John's, and it has offices and operators at 92 other points on the island. The salary list at St. John's for the current year amounts to $10,002, and at the other offices to $24,358, of which Port-aux-Basques absorbs $2,160. Of the other offices there are only four where the operator is in receipt of $500 a year or over, the poorest paid office being at Sally Cove, where the stipend is $60.

The Marconi Wireless Telegraph Co. maintains and operates five stations on the Labrador coast for commercial messages, under a contract with the Newfoundland Government. The contract gives the M.W. T. Co. an exclusive license for the erection of wireless stations in Newfoundland for a period of ten years. The stations now in operation under this contract are: Battle Harbor, Venison Island, Seal Island, Domino and Indian Harbor.

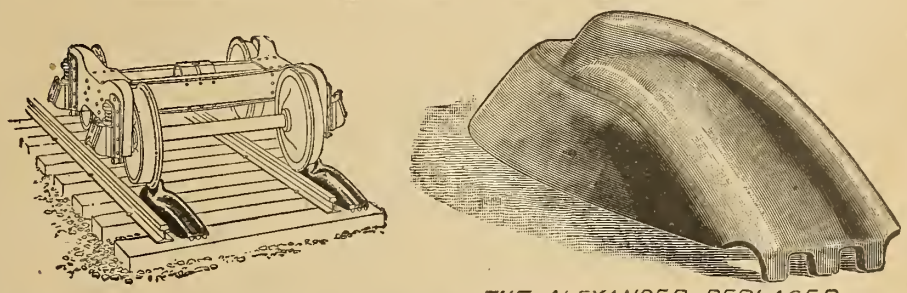
A United States official publication of recent date says that there are only five wireless telegraph stations in Canada. In addition to the trans-Atlantic stations near Sydney, N.S., there are in operation eleven Marconi stations in Canada and four in Newfoundland and Labrador, which were erected by the Dominion Government, and five in Labrador erected by the Newfoundland Government. There are two additional stations in course of erection in Canada for the Canadian Government. Following is a list of the stations in operation in Canada, Newfoundland and Labrador:

Canada—Fame Point, Heath Point, Anticosti Island, Belle Isle, Point au Maurice, Grosse Isle, Quebec, Que.; Halifax, Sable Island, Cape Sable, N.S.; St. John, N.B.; Cape Bear, P.E.I.

Newfoundland—Point Rich, Cape Ray, Cape Race.

Labrador—Point Amour, Battle Harbor, Venison Island, Seal Island.

The Marconi Wireless Telegraph Co. has recently completed contracts with the Dominion Government for the erection of wireless telegraph stations at Seven Islands and Father Point, Que., and for the enlargement of the existing station at Cape Race, Nfld. Hitherto Fame Point, Que., has been the most westerly of the stations on the St. Lawrence, and vessels have been unable to communicate after sailing out of range of that station until their arrival in Quebec. The new stations will enable vessels to communicate with the land all the way up to Quebec, and will complete the chain of Marconi wireless telegraph stations from Quebec



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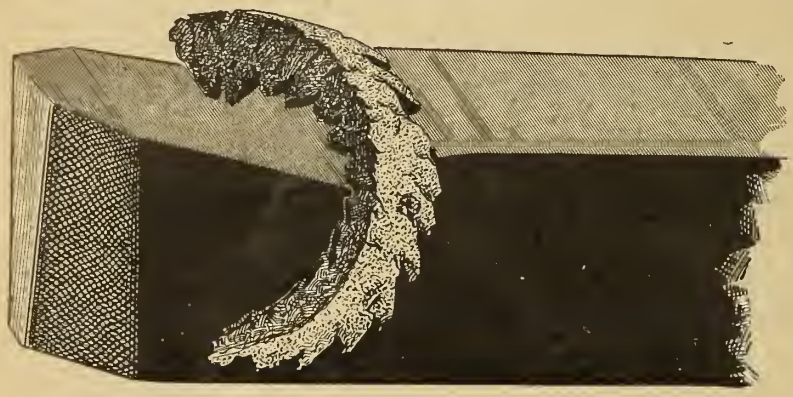

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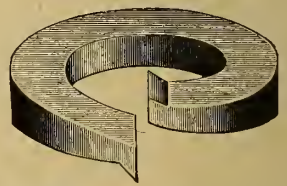

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to Belle Isle and to Cape Race. The contract for the stations at Seven Islands and Father Point was given partly to offset any breakdown of the land telegraph lines between Belle Isle and Quebec, over which movements of vessels are at present reported. The two new stations will be similar to those already erected in the river and on the Atlantic Coast; and the enlargement of the Cape Race station is necessary in order that it may communicate with these new stations, and with vessels further out at sea.

General Telephone Matters.

The Bell Telephone Co. has completed a line between St. Raymond and St. Leonard de Portneuf, Que.

Local telephone lines are being strung between Elgin and Westhall, Elgin and Mullerway, and through the Fairfax district of Manitoba.

H. C. Brockwell, formerly local superintendent of the Bell Telephone Co. at Winnipeg, Man., was presented with an address and gold pin by the operators on leaving for Vancouver, Sept. 5.

The Bell Telephone Co. has completed an additional long distance metallic line between Hamilton and St. Catharines, Ont. It is proposed to extend this line to Buffalo, N.Y., in the near future.

The Bell Telephone Co. has purchased the local telephone line recently constructed to connect Singhampton, Glen Huron and Duntroon, Ont., and has replaced it by a metallic trunk line.

F. H. Thomson, Assistant General Manager New Brunswick Telephone Co., St. John, N.B., has resigned on account of ill-health, and his position is being filled temporarily by H. P. Robinson, of Sussex, N.B.

The amalgamation of the New Brunswick and the Central Telephone Companies is not viewed with favor by the residents of Woodstock, N.B., and there is already some talk of establishing an independent system.

The Alberta Government has ordered the necessary posts to be cut for the construction of a trunk telephone line from Wetaskiwin easterly along the C.P.R. line, and westerly to the Pigeon Lake settlements.

The Union Farmers' Telephone Co. has been incorporated under the Manitoba Companies' Act with a capital stock of $2,000 to construct a telephone system in the municipality of Langford, in accordance with the provisions of the act respecting municipal telephones.

F. Dagger, who gave evidence before the Dominion Telephone Committee in 1905, has been appointed as a telephone expert by the Manitoba Government to advise with the municipalities, and give information regarding the proposed Government telephone system.

The Alberta Government has appointed Jas. Grierson, of Calgary, as Superintendent of Construction for the telephone lines which it is about to construct. The first line to be strung will be one between Calgary and Banff, which it is expected to have completed by Dec. 31.

The Bell Telephone Co. has let contracts for the enlargement of its exchange at Ottawa, Ont. A new front at the street line will be added, and an extension of 26 ft. will be erected in the rear. A new switchboard will be installed as soon as the building is completed.

The Century Telephone Construction Co. has been authorized to do business in Ontario as contractors, and to manufacture and sell telephone appliances. The capital to be used in Ontario must not exceed $40,000, and A. F. Wilson, barrister-at-law, Toronto, has been appointed its attorney.

The American Machine Telephone Co. has been incorporated under the Ontario Companies' Act, with a capital of $450,000 and offices at Brantford, Ont., to carry on the general business of a telephone company. The provisional directors are: H. N. Baker, A. E. Knox, and T. E. Moulden, of Toronto.

The Saskatchewan Telephone Co., which has its headquarters at Moose Jaw, Sask., expected to have established long distance telephonic communication between that town and Winnipeg, Man., by the end of Sept. A line is also being constructed to Saskatoon, Sask. Fry and Masterson, Moose Jaw, have the contract.

The St. John, N.B., Bity Council is being asked by the New Brunswick Telephone Co. to approve of the laying of underground conduits on Charlotte, Water and Waterloo streets. A committee which considered the matter recommends that permission be given upon consideration that one duct is reserved for a city fire alarm service.

The Bell Telephone Co. is constructing a long distance line to connect all the towns on the C.P.R. between Moose Jaw and Winnipeg, about 300 miles, and will erect an exchange at Regina, Sask., to control the business. It will also extend its long distance line south from Calgary, through Okotoks, High River and McLeod to Lethbridge, Alta.

The Nova Scotia Telephone Co. has had a number of men engaged for some weeks strengthening posts, putting up new wire and otherwise improving the lines of the Eastern Telephone Co., which it recently took over. A new copper wire is being strung between Sydney and Louisburg. It is proposed to instal a new exchange at North Sydney, N.S.

The Ingersoll Telephone Co. has been organized, all the preliminary work has been done, and it is stated that construction will be started at once. It is hoped that the exchange in Ingersoll, Ont., will be opened by Dec. 1, and some of the country lines shortly thereafter. The company has already secured about 400 subscribers. Following are the officers for the current year: President, H. F. Boyse; Vice-President, O. E. Robinson; Secretary, E. H. Hugill; Manager, T. R. Mayberry.

The Premier of Manitoba speaking at Winnipeg, Sept. 12, said Manitoba had offered the Bell Telephone Co. 105 cents for every dollar's worth of its property in the province. This was not permitted by the Dominion Government, Hon. A. B. Aylesworth acting on behalf of the Bell Co. Therefore, the Bell system would be expropriated if possible. Anyway the province would own its own telephone system. At the next municipal elections in Dec. a non-partizan plebiscite would be taken throughout the province, and the feeling of every voter in the province would thus be tested on the subject. After the system had been legalized it would be left to the option of the council of each municipality to say whether that district will use it. It would be purely local option. It would be a first-class system under the management of a commission of business men and experts. And with equal brains and an effective administration he thought the Government might be able to run it at less than a quarter the cost to the user than that charged by the Bell Co.

The plans and specifications of the new building at North Sydney, N.S., for the Eastern Telephone Co., have been given out to the contractors. The new building, when finished, will provide ample accommodation for the increasing business at this point. It is intended to provide a central energy switchboard and to utilize the most modern equipment throughout. The new exchange is expected to be completed early in 1907.

Bell Telephone Extensions and Improvements.

The improvements and extensions which the Bell Telephone Co. has arranged to carry out upon its system during the current financial year will involve an expenditure of about $2,000,000, and 3,000 men will be engaged upon the work. The new capital, recently authorized, will be largely expended upon additions to long distance lines and providing for increased facilities between large and important centres. The rapid growth of population in the West has compelled the directors to take action in extending the system in Saskatchewan and Alberta.

The number of new subscribers taken at Montreal recently will force the company to provide a fifth exchange, which will be situated in the north end. In it business east of Park avenue and north of Sherbrooke St. will be attended to. The growth of the telephone business in Toronto compels the company to provide an additional exchange, and one will be built in the north end, to be known as the College Exchange building. Throughout Ontario the central energy system is being introduced into a number of the towns not already equipped with the apparatus. A site has been secured for the central energy exchange at Brantford, on which will be constructed large buildings.

In Manitoba a number of additional trunk lines will be added to the system, in order to cater to the increasing trade, while the rural lines will also be further developed. An additional exchange is now in course of erection in the Fort Rouge district of Winnipeg, Portage la Prairie and Brandon are now being equipped with central energy switch boards.

Early next spring extensions will be made throughout Saskatchewan connecting all points not already in communication. The work of constructing a long distance line in Saskatchewan is about completed, connecting all towns and villages along the main line of the C.P.R. with Manitoba points. This will give telephone communication with all points between Winnipeg and Moose Jaw, a distance of over 500 miles. Connection is also about completed south of Regina to Estevan. Property has been purchased at Regina and special buildings are being erected to control the business in that district. In Calgary, Alta., the company has purchased a large site on which to erect an exchange building, which will be open for business early next season. It is extending the long distance service south from Calgary through Okotoks, High River and McLeod, thence eastward to Lethbridge. This will give direct telephone connection from Cardston, northward to Edmonton. Branch lines are contemplated running east and west connecting many of the new settlements in Alberta with Edmonton and Calgary.

Canadian Independent Telephone Association.

The first annual meeting of this association was held in Toronto, Sept. 6, A. Hoover, President, being in the chair, representatives being present from local telephone companies, and from municipalities. The report of the Secretary, A. F. Wilson, of Markham, Ont., showed the number of absolutely independent or non-Bell companies, or private systems, to be 73; number of shareholders, 3,248; number of subscribers, Aug. 15, 1905, 6,427; number of subscribers, Aug. 15, 1906, 12,073; increase in one year, 5,646; capital invested, $850,000.

A number of papers were read, and addresses were given by those interested in

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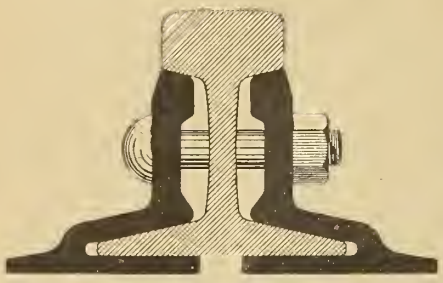

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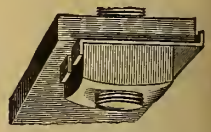

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the movement. A resolution was passed stating that the granting of exclusive franchises was detrimental to the progress of cheaper and better telephony; that no municipality should have power to grant exclusive franchises to any company, and that the association should petition the Legislature to rescind all legislation which makes this possible Another resolution referred to amendments to the Railway Act made at the last session of the Dominion Parliament as most unsatisfactory and inadequate, especially those amendments relating to matters between telephone companies and railways, and stated that the machinery provided by the act for recourse to the Railway Commissioners of Canada is unduly expensive to local companies, particularly farmers' lines; that difficulties thrown in the way of independent companies and municipalities by the railways have been in the interests solely of a monopoly; that arrangement should be made with the railway companies so that access to and the placing of independent instruments in railway and other depots might be effected, and also so as to secure the privilege of crossing telephone lines over railways, the use of railway bridges and other communications in order that all telephone companies shall be placed on the same footing; that an effort be made to influence the Railway Commissioners to make such provisions and regulations that applications in regard to telephone matters may be made simple, speedy and inexpensive, and that in the event of fair and reasonable arrangements not being obtainable from the transportation companies, the Executive Committee take steps to petition the Governor-General-in-Council and Parliament for redress.

A third resolution was to the effect that intercommunication between local systems and long distance lines should be secured exclusively over or by means of lines operated by independent companies or owned by the Province.

Following were elected officers for the current year: President, Alph. Hoover, Green River, Ont.; Vice-President, F. D. Mackay, Toronto, Ont.; Secretary-Treasurer, A. F. Wilson, Markham, Ont.; Executive Committee, T. F. Demers, M.D., Levis, Que.; W. Doan, M.D., Harrietsville, Ont.; C. J. Thornton, Kirby, Ont.; Dr. Ochs, Hespeler, Ont.; Richard Vigars, Port Arthur, Ont.; E. Hart, M.D., Brantford, Ont.; Levi Moyer, Beamsville, Ont.; F. Dagger, Toronto; C. Skinner, Sherbrooke, Que.

The Purchasing Agents' Guide

To the Manufacturers of & Dealers in Steam & Electric Railway, Marine, Grain Elevator, Express, Telegraph, Telephone and Contractors' Supplies, &c.

Accident Insurance
Accident & Guarantee Co. of Canada, ...Montreal
Canadian Ry. Accident Ins. Co.....Ottawa, Ont

Aerated Waters
E. L. Drewry.....Winnipeg.

Air Brakes and Fittings
Canada Foundry Co.....Toronto.
Canadian Westinghouse Co.....Hamilton, Ont.

Air Compressors
N. J. Holden Co.....Montreal.

Ales
E. L. Drewry.....Winnipeg

Axes
James Smart Mfg. Co.....Brockville, Ont.

Axe Steel
Montreal Steel Works.....Montreal.

Axles
James Hutton & Co.....Montreal.
B. M. Jones & Co., Inc.....Boston and New York.
Jas. W. Pyke & Co.....Montreal.
Rhodes, Curry & Co.....Amherst, N.S.

Bearings, Side
Chicago Railway Equipment Co.....Chicago, Ill.

Belting, Rubber
The Canadian Rubber Co. of Montreal.

Blankets and Bedding
The Hudson's Bay Co.....

Boiler Compound
N. J. Holden Co.....Montreal.

Boiler Covering
Mica Boiler Covering Co.....Montreal

Boilers
Babcock & Wilcox (Ltd).....Montreal.
Canada Foundry Co.....Toronto.
Hall Engineering Works.....Montreal.
Polson Iron Works.....Toronto.
Robb Engineering Co.....Amherst N.S.

Boilers, Internally Fired
Robb Engineering Co.....Amherst, N.S.

Boilers, Portable
Canada Foundry Co.....Toronto.
H. W. Petrie.....Toronto.
Robb Engineering Co.....Amherst, N.S.

Boilers, Stationary and Marine
Babcock & Wilcox (Ltd.).....Montreal.
Canada Foundry Co.....Toronto.
H. W. Petrie.....Toronto
Robb Engineering Co.....Amherst, N.S.

Boilers, Steam
Babcock & Wilcox (Ltd.).....Montreal.
H. W. Petrie.....Toronto
Robb Engineering Co.....Amherst, N.S.

Boilers, Water Tube
Babcock & Wilcox (Ltd.).....Montreal.
Robb Engineering Co.....Amherst, N.S.

Boiler Tubes
Jas. W. Pyke & Co.....Montreal.

Bolsters
Simplex Railway Appliance Co.....Montreal.

Bolts, Bridge
Canada Foundry Co.....Toronto.
Toronto Bolt and Forging Co.....Toronto.

Bolts, Carriage and Machine
Toronto Bolt and Forging Co.....Toronto.

Bolts, Track
Canada Foundry Co.....Toronto.
Toronto Bolt and Forging Co.....Toronto.

Box Car Loaders
W. H. C. Mussen & Co.....Montreal

Brake Beams
Chicago Railway Equipment Co.....Chicago, Ill.
Simplex Railway Appliance Co.....Montreal.

Brake Shoes
American Brake Shoe & F'dry Co.,....Mahwah N.J.
Canadian Iron and Foundry Co.....Montreal.
N. J. Holden Co.....Montreal.

Brass and Copper Cloth
The B. Greening Co.....Hamilton, Ont.

Bridge Numbers
Acton Burrows Limited.....Toronto.

Bridges
Canada Foundry Co.....Toronto.
Canadian Bridge Co.....Walkerville, Ont.
Dominion Bridge Co.....Montreal.
Steel Concrete Co. (Ltd.).....Montreal.

Buckets
Cyclopean Iron Works Co.....Jersey City, N.J.

Bumping Posts
Mechanical Mfg. Co.....Chicago, Ill.

Buoy Lighting
Safety Car Heating and Ligbting Co....New York.
Willson Gas Buoy Co.....Ottawa, Ont.

Cables, Electric and Feeder
E. F. Phillips Electrical Works, Ltd.,....Montreal.
The Wire and Cable Co.....Montreal.

Caboose Heaters
Geo. R. Prowse.....Montreal.

Caps
W. H. Coddington.....Hamilton, Ont.

Car Castings
American Brake Shoe & F'dry Co. ....Mahwah, N.J.
Canadian Iron and Foundry Co.....Montreal.

Car Closets
Duner Co.....Chicago, Ill.

Car Fittings
The Robert Mitchell Co.....Montreal.

Car Heating
Wm. C. Baker Heating & Supply Co....New York.
Safety Car Heating and Lighting Co....New York.

Car Jacks
F. H. Hopkins & Co.....Montreal.
W. H. C. Mussen & Co.....Montreal.

Car Kitchen Equipments
Geo. R. Prowse.....Montreal

Car Lighting
Safety Car Heating and Lighting Co....New York.

Car Movers
N. J. Holden Co.....Montreal.
F. H. Hopkins & Co.....Montreal.
W. H. C. Mussen & Co.....Montreal.

Car Ranges
Geo. R. Prowse.....Montreal.

Car Replacers
Alexander Car Replacer Mfg. Co.....Scranton, Pa.
N. J. Holden Co.....Montreal.
F. H. Hopkins & Co.....Montreal.

Cars
American Palace Car Co.....New York & Toronto.
Crossen Car Mfg. Co.....Cobourg, Ont.
Dominion Steel Car Co.....Montreal.
Rhodes, Curry & Co.....Amherst, N.S.

Car Upholstery
N. J. Holden Co.....Montreal.

Car Windows
O. M. Edwards.....Syracuse N.Y.

Castings
Crossen Car Mfg. Co.....Cobourg, Ont.

Castings, Brass
Canadian Bronze Co.....Montreal.
Canadian Iron and Foundry Co.....Montreal.
Kerr Engine Co.....Walkerville, Ont.
St. Thomas Brass Co.....St. Thomas, Ont

Castings, Iron
Canadian Iron and Foundry Co.....Montreal.
Kerr Engine Co.....Walkerville Ont.

Castings, Iron and Steel
American Brake Shoe & F'dry Co.....Mahwah, N.J.

Castings, Steel
Canadian Iron and Foundry Co.....Montreal.
W. Kennedy & Sons, Ltd.....Owen Sound, Ont.
Montreal Steel Works.....Montreal.
Rhodes, Curry & Co.....Amherst. N.S.

Cast-Steel Hammers
American Brake Shoe & F'dry Co.....Mahwah, N.J.

Cast-Steel Track Tools
American Brake Shoe & F'dry Co.....Mahwah, N.J.

Cast-Steel Wrenches
American Brake Shoe & F'dry Co.....Mahwah, N.J.

Cement Machinery
Jas. W. Pyke & Co.....Montreal.

Chains
B J. Coghlin & Co.....Montreal

Chimneys
Steel Concrete Co. (Ltd.).....Montreal.

Coal Haulage Ropes
The B. Greening Co.....Hamilton, Ont

Coal Storage Plants
Steel Concrete Co. (Ltd.).....Montreal.

Coil Spring Wire
New Brunswick Wire Fence Co.... Moncton, N.B

Compasses
J. Leckie Limited.....Toronto.

Concrete Construction
Forest City Paving & Construction Co..London, Ont.

Concrete Mixers and Rock Crushers
Goold, Shapley & Muir Co.....Brantford, Ont.
E. F. Dartnell.....Montreal.
F. H. Hopkins & Co.....Montreal.
W. H. C. Mussen & Co.....Montreal.
Toronto Pressed Steel Co..... Toronto.

Concrete Pipe
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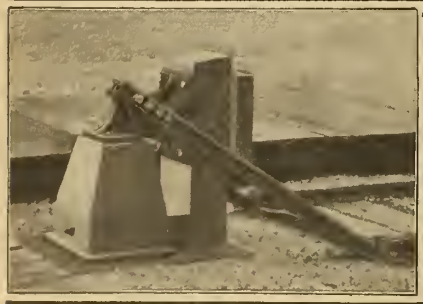

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Canadian General Electric Co.....Toronto.

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Canadian General Electric Co.....Toronto.
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W. H. C. Mussen & Co.....Montreal.

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Vulcan Iron Works Co.....Toledo, Ohio.

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Dominion Bridge Co.....Montreal.
W. H. C. Mussen & Co.....Montreal.

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American Brake Shoe & F'dry Co.....Mahwah, N.J.

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Engines, Corliss
Robb Engineering Co.....Amherst, N.S

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Robb Engineering Co.....Amherst, N.S.

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Robb Engineering Co.....Amherst, N.S.

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Canada Foundry Co.....Toronto.
Canadian Steel and Wire Co.....Hamilton, Ont.
Locked Wire Fence Co.....London, Ont.
New Brunswick Wire Fence Co.....Moncton, N.B.
Owen Sound Wire Fence Co.....Owen Sound, Ont.
Page Wire Fence Co.....Walkerville, Ont.

Fence Staples
New Brunswick Wire Fence Co.....Moncton, N.B.

Fire Brick
W. H. C. Mussen & Co.....Montreal.

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Locked Wire Fence Co.....London, Ont.
The G. B. Meadows Wire, etc., Co.....Toronto.

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The Hudson's Bay Co.....

Flour
The Hudson's Bay Co.....

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General Railway Signal Co.....Buffalo, N.Y.
Standard Steel Works.....Philadelphia, Pa.

Gas Buoys
Willson Gas Buoy Co.....Ottawa.

Gas Pipe (Cast Iron)
Gartshore-Thompson Pipe & F'dry Co., Hamilton.

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Banwell-Hoxie Fence Co.....Hamilton, Ont.
Canada Foundry Co.....Toronto.
Locked Wire Fence Co.....London, Ont.
New Brunswick Wire Fence Co.....Moncton, N.B.
Owen Sound Wire Fence Co.....Owen Sound, Ont.
Page Wire Fence Co.....Walkerville, Ont.

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Crossen Car Mfg. Co.....Cobourg, Ont.
F. H. Hopkins & Co.....Montreal.
W. H. C. Mussen & Co.....Montreal.
Toronto Pressed Steel Co.....Toronto.

Hardware
The Hudson's Bay Company.....

Hats
W. H. Coddington.....Hamilton, Ont.

Headlights
N. L. Piper Railway Supply Co.....Toronto.

Headlinings
Crossen Car Mfg. Co.....Cobourg, Ont.

Hoppers, Car, Wet or Dry
Duner Co.....Chicago, Ill.

Hose, Air Brake and Steam
The Canadian Rubber Co. of Montreal.

Hose, Fire
The Canadian Rubber Co. of Montreal.

Hose, Suction
The Canadian Rubber Co. of Montreal.

Hydrants
Kerr Engine Co.....Walkerville, Ont

Illustrations
Acton Burrows Limited.....Toronto.

Inspection Cars
Canada Cycle and Motor Co.....Toronto Junc. Ont.

Inspections
R. W. Hunt & Co.....Montreal.

Instruments, Surveying and Engineering
Eugene Dietzgen Co.....New York.
James Foster.....Toronto.

Interlocking Signals
Montreal Steel Works.....Montreal.

Iron
A. C. Leslie & Co.....Montreal.

Iron Fencing
The G. B. Meadows Wire, etc., Co.....Toronto.

Iron, Pig
John McDougall & Co.....Montreal.

Iron Signs
Acton Burrows Limited.....Toronto.

Jacks
James Smart Mfg. Co.....Brockville, Ont.

Japans
McCaskill, Dougall & Co.....Montreal.

Journal Bearings
Canada Foundry Co.....Toronto.
Canadian Bronze Co.....Montreal.
Crossen Car Mfg. Co.....Cobourg, Ont.
Kerr Engine Co.....Walkerville, Ont.
Jas. W. Pyke & Co.....Montreal.
St. Thomas Brass Co.....St. Thomas Ont.

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Lager Beer, &c.
E. L. Drewry.....Winnipeg.

Lamps, Incandescent
Canadian Westinghouse Co.....Hamilton, Ont.

Lamps and Lanterns
The Hudson's Bay Company.....
The Hiram L. Piper Co.....Montreal.
N. L. Piper Railway Supply Co.....Toronto.

Lathes
H. W. Petrie.....Toronto.

Launches
Polson Iron Works.....Toronto.

Lights, Contractors' and Wrecking
F. H. Hopkins & Co.....Montreal.
W. H. C. Mussen & Co.....Montreal.

Locomotive Driver Brake Shoe
American Brake Shoe & F'dry Co.....Mahwah, N.J.
Canadian Iron and Foundry Co.....Montreal.

Locomotive Lagging and Covering
Canadian Fairbanks Co.....Montreal

Locomotives (Compressed Air)
Canadian Locomotive Co.....Kingston, Ont
Locomotive and Machine Co. of Montreal.

Locomotives (Electric)
Canada Foundry Co.....Toronto
Locomotive and Machine Co. of Montreal.

Locomotives (Logging)
Canadian Locomotive Co.....Kingston, Ont.

Locomotives (Rack)
Canadian Locomotive Co.....Kingston, Ont.
Locomotive and Machine Co. of Montreal.

Locomotives (Steam)
Canada Foundry Co.....Toronto.
Canadian Locomotive Co.....Kingston, Ont.
The W. H. Kelson Co.....Montreal.
Locomotive and Machine Co. of Montreal.

Locomotive Stack Netting
The G. B. Meadows Wire, etc., Co.....Toronto.

Machine Tools
W. Abbott.....Montreal.
Canadian Fairbanks Co.....Montreal.
H. W. Petrie.....Toronto.

Machine Screws, Set Cap and Planer
John Morrow Machine Screw Co.....Ingersoll.

Machinery, Marine
Sheriffs Mfg. Co.....Milwaukee, Wis.

Machinery Repairs, Marine
Sheriffs Mfg. Co.....Milwaukee, Wis.

Manganese Steel Castings
Montreal Steel Works.....Montreal.

Manhole Frames and Covers
American Brake Shoe & F'dry Co.....Mahwah, N.J.
Canadian Iron and Foundry Co.....Montreal.

Marine Supplies
Rice Lewis & Son.....Toronto.

Mats and Matting
The Canadian Rubber Co. of Montreal.

Metals
A. C. Leslie & Co. ..... Montreal.

Metal Studding
A. B. Ormsby Limited ..... Toronto.

Metal Windows
A. B. Ormsby Limited ..... Toronto.

Milepost Numbers
Acton Burrows Limited ..... Toronto.

Milling Cutters
W. Abbott ..... Montreal.

Milling Machines
H. W. Petrie ..... Toronto.

Mills, Boring and Turning
H. W. Petrie ..... Toronto.

Motor Cars
Canada Cycle & Motor Co. ..... Toronto Junc., Ont.

Nickel
The Orford Copper Co. ..... New York.

Nickel for Nickel Steel
The Orford Copper Co. ..... New York.

Numbers
Acton Burrows Limited ..... Toronto.

Nut Locks
Jones Positive Nut Lock Co. ..... Chicago, Ill.
Positive Lock Washer Co. ..... Newark, N.J.

Nuts, Cold Pressed
John Morrow Machine Screw Co. ..... Ingersoll.

Nuts, Square and Hexagon
Canada Foundry Co. ..... Toronto.
Toronto Bolt and Forging Co. ..... Toronto.

Oakum
The Hudson's Bay Company. .....
McKenzie & Co. ..... Montreal.

Office Desks
Canadian Office & School Furniture Co., Preston, Ont.

Office Fittings
Canadian Office & School Furniture Co., Preston, Ont.

Office Railings
Locked Wire Fence Co. ..... London, Ont.
The G. B. Meadows Wire, etc., Co. ..... Toronto.

Office Signs
Acton Burrows Limited ..... Toronto.

Oils
Canadian Oil Co. ..... Toronto.
Galena Signal Oil Co., Franklin, Pa., and Toronto.

Packing
The N. L. Piper Railway Supply Co. ..... Toronto.

Packing, High Pressure Sheet
The Canadian Rubber Co. of Montreal.

Packing, Piston
The Canadian Rubber Co. of Montreal

Paints
Canadian Oil Co. ..... Toronto.

Paints, Damp Resisting
E. F. Dartnell ..... Montreal.

Passenger Cars
American Palace Car Co. . New York and Toronto.

Pinch Bars
The N. L. Piper Railway Supply Co. ..... Toronto.

Pipe and Pipe Coverings
Wm. C. Baker Heating & Supply Co. . New York.

Pipe Covering
Canadian Fairbanks Co. ..... Montreal.
Mica Boiler Covering Co. ..... Montreal.

Pipe Stocks
Butterfield & Co. ..... Rock Island, Que.

Piston Rods
B. M. Jones & Co., Inc. ... Boston and New York

Planers
H. W. Petrie ..... Toronto

Ploughs, Contractors'
W. H. C. Mussen & Co. ..... Montreal.
Toronto Pressed Steel Co. ..... Toronto.

Pneumatic Tools
N. J. Holden Co. ..... Montreal.

Porter
E. L. Drewry ..... Winnipeg.

Portable Boilers
Babcock & Wilcox (Ltd.) ..... Montreal.
Canada Foundry Co. ..... Toronto.
Robb Engineering Co. ..... Amherst, N.S.

Power Houses
Steel Concrete Co, (Ltd.) ..... Montreal.

Printing
The Hunter, Rose Co. ..... Toronto.
The Mail Job Printing Company ..... Toronto.

Propeller Wheels
W. Kennedy & Sons (Ltd.). .... Owen Sound, Ont.
Sheriffs Manufacturing Co. ..... Milwaukee, Wis.

Pumps
Canadian Fairbanks Co. ..... Montreal.
Canada Foundry Co. ..... Toronto.
Goold, Shapley & Muir Co. ..... Brantford Ont.
James Smart Mfg. Co. ..... Brockville, Ont.

Pumps (Centrifugal)
M. Beatty & Sons ..... Welland. Ont.

Rail Benders, Roller
F. H. Hopkins & Co. ..... Montreal.
Montreal Steel Works ..... Montreal.

Rails (new)
Dominion Iron & Steel Co. ..... Sydney, N.S.
Drummond, McCall & Co. ..... Montreal.
F. H. Hopkins & Co. ..... Montreal.
J. J. Gartshore ..... Toronto.

Rails (for relaying)
F. H. Hopkins & Co. ..... Montreal.
J. J. Gartshore ..... Toronto.
T. A. Morrison & Co. ..... Montreal.
W. H. C. Mussen & Co. ..... Montreal.
Jas. W. Pyke & Co. ..... Montreal.

Rail Joints
Continuous Rail Joint Co. of Canada. ... Montreal.
N. J. Holden Co. ..... Montreal.

Railway Pile Drivers
F. H. Hopkins & Co ..... Montreal.
W. H. C. Mussen & Co. ..... Montreal.

Railway Spikes
F. H. Hopkins & Co. ..... Montreal.

Railway Supplies
Canadian Fairbanks Co. ..... Montreal.
The W. H. Kelson Co. .... Montreal.
The Hiram L. Piper Co. ..... Montreal.
The N. L. Piper Railway Supply Co. ..... Toronto.
Rice Lewis & Son ..... Toronto.

Reamers
W. Abbott ..... Montreal.
Butterfield & Co. ..... Rock Island, Que.

Refrigerators
Geo. R. Prowse ..... Montreal.

Rivets, Boiler, Bridge and Structural
Canada Foundry Co. ..... Toronto.
Toronto Bolt and Forging Co. ..... Toronto

Rolled Wheels
Standard Steel Works ..... Philadelphia, Pa.

Roofers
A. B. Ormsby Limited ..... Toronto

Roof Trusses
Canada Foundry Co. ..... Toronto.
Canadian Bridge Co. ..... Walkerville, Ont.
Dominion Bridge Co. ..... Montreal.

Rope
F. H. Hopkins & Co. ..... Montreal.
The Hudson's Bay Co. .....
J. Leckie Limited ..... Toronto.

Rotary Snow Ploughs
Crossen Car Mfg. Co. ..... Cobourg, Ont.

Roundhouses
Forest City Paving & Construction Co. London, Ont.
Steel Concrete Co. (Ltd.) ..... Montreal.

Rubber Tiling, Interlocking
The Canadian Rubber Co. of Montreal.

Sash Balances
O. M. Edwards ..... Syracuse, N. Y.

Sash Locks
O. M. Edwards ..... Syracuse, N.Y.

Saw Steel
Montreal Steel Works. ..... Montreal.

Scale Boxes
Cyclopean Iron Works Co. ..... Jersey City, N.J.

Scrapers (Wheel and Drag)
F. H. Hopkins & Co. ..... Montreal.
W. H. C. Mussen & Co. ..... Montreal.
Toronto Pressed Steel Co. ..... Toronto.

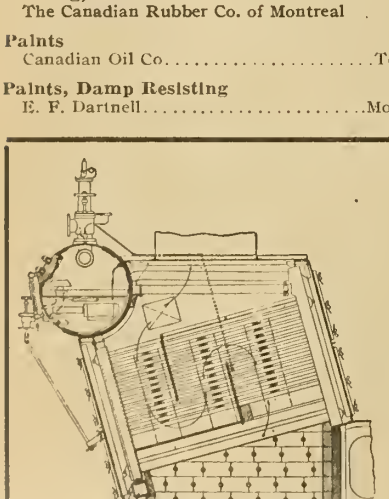
Screw Plates
Butterfield & Co. ..... Rock Island, Que.

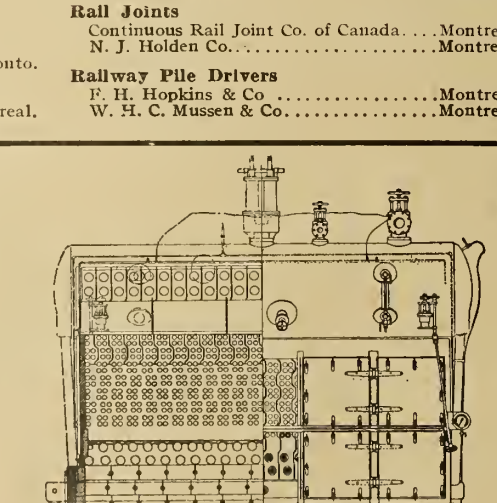
Screws, Coach and Lag
Toronto Bolt and Forging Co. ..... Toronto.

Semaphore Arms
Acton Burrows Limited ..... Toronto.

Semaphores
The N. L. Piper Railway Supply Co. ..... Toronto.

Sewer Pipe (Cast Iron)
Gartshore-Thompson Pipe & F'dry Co. . Hamilton.





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See Purchasing Agents' Guide on page 697

See Alphabetical Index to Advertisements on page 667.

THE

Railway and Marine World

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Old Series, No. 187.
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TORONTO, CANADA, NOVEMBER, 1906.

Subscription, $1 a Year.
Toronto Postal Delivery, $1.25 a Year.

C.P.R. Annual Meeting.

At the annual meeting in Montreal, Oct. 3, Sir Wm. Van Horne, Chairman of the Board, presided. The President, Sir Thos. G. Shaughnessy, in moving the adoption of the report for the year ended June 30, which was published in our last issue, said:

It is scarcely necessary to dwell on the 25th annual report now submitted for your approval and adoption. No doubt the result of your operations is as gratifying to you as it is to your directors. The increase of more than $11,000,000 in gross earnings marks the progress and development of the territory served by your lines, and the very satisfactory net revenue remains after a liberal allowance in working expenses for the maintenance of your property. Thus far in the present year revenue from traffic shows a large increase over the corresponding period in the previous year, and while it is entirely probable that later on the weekly comparisons will not be so striking, there is every reason to anticipate continued improvement. Indeed, although neither effort nor money is spared, we find it almost impossible to provide cars and locomotives rapidly enough to meet the requirements of the business development along your lines in such a manner as to satisfy, with desirable promptness, the demands of your patrons.

At the special general meeting held March 19 last it was decided to supplement the proceeds of the issue of ordinary capital stock then authorized by an appropriation from surplus earnings of $5,000,000. No portion of this appropriation had been expended prior to June 30, but your directors have caused the amount to be set aside in the accounts of the current year to be employed from time to time, as circumstances may warrant, in additions and improvements to your property. Early in July the balance required to redeem the 3½% land grant bonds was deposited with the Government, and the requisite instrument has been executed relieving the company forever from any liability in respect of the principal or interest of the bonds, so that all of your lands are now free from any encumbrance whatever. Since June 30, 1901, you have redeemed bonds to the amount of $17,831,000 out of the proceeds of land sales, and during the same period the balance due the company on account of land sold has increased from $3,467,000 to $16,382,000, on which you are receiving interest at the rate of 6% per annum. The principal sum realized from the sale of your lands should, in the opinion of your directors, be permitted to accumuluate and be invested so as to give you the best interest return consistent with safety, until such time as a definite plan can be evolved for its utilization, but the interest on both the cash receipts and deferred payments, which are increasing month by month, is available revenue to be dealt with as you may think best. It is evident now that the receipts from this source will, during this year, be about equivalent to 1% on the ordinary share capital. In the current year your directors propose to distribute this 1% to the shareholders in semi-annual instalments of ½% each, payable April 1 and Oct. 1, 1907.

F. F. BUSTEED,
Assistant Chief Engineer, Western Lines Canadian Pacific Ry.

Sir W. Van Horne stated that the construction of the various new branch lines and extensions was progressing favorably. The Guelph and Goderich Ry. was nearing completion. Work on the line between Toronto and Sudbury was well advanced. It was expected that the branch from Wolseley to Reston would be finished this autumn. Grading was being done in both directions between Wetaskiwin, Strassburg and Sheho, with a view to a through connection between the Manitoba and North-Western Line, the Pheasant Hills Line, and Edmonton in 1907. An important and expensive bridge would be required over the Saskatchewan River at Edmonton, which the Calgary and Edmonton Ry. Co. would provide under the terms of the agreement with that company sanctioned some time ago.

The resolution adopting the report was seconded by R. B. Angus, and agreed to.

Resolutions were then unanimously passed:

Authorizing the signing of a lease of the Georgian Bay and Seaboard Ry., from Victoria Harbor, Georgian Bay, to the Ontario and Quebec Ry. near Peterborough, Ont., about 96 miles, and all other lines which may hereafter be constructed by the G.B. and S. Ry. Co., for 999 years, at an annual rental of a sum equal to 4% upon all bonds which the lessor shall issue at the request of the C.P.R. Co., the payment of such interest to be guaranteed by the C.P.R. Co., the aggregate of all bonds outstanding not to exceed at any one time $30,000 per mile of the railway constructed or under contract.

Authorizing the execution of a lease of the Joliette and Brandon Ry. The lease demises to the C.P.R. Co., for 94 years, the whole of the railway as now constructed from St. Gabriel de Brandon to a junction with the C.P.R. in St. Felix de Valois parish, Que., at an annual rental of a sum equal to 4% upon bonds issued at the request of the C.P.R. Co. to an extent not exceeding $20,000 a mile of line constructed or under contract, the present issue being fixed at $125,000 and the interest guaranteed by the C.P.R. Co.

Authorizing the execution of a lease of the Walkerton and Lucknow Ry. for 99 years. The lease demises the railway now under construction from Proton, on the main line of the Toronto, Grey and Bruce Ry., to Walkerton, Ont., about 37 miles; and all other railways or branches hereafter to be constructed, at an annual rental of a sum not exceeding 4% upon bonds to be issued by the lessor, upon the request of the C.P.R. Co., which guarantees the interest, the total amount of bonds outstanding not to exceed at any time $20,000 a mile of railway constructed or under contract.

Authorizing the execution of a lease of the Berlin, Waterloo, Wellesley and Lake Huron Ry. for 99 years. The property demised includes the company's lines extending from the G.T.R. station Galt, to Waterloo, passing through Preston and Hespeler, Ont., about 20.30 miles, and all lines hereafter to be constructed by it, at a rental of 4% on all bonds issued by it at the request of the C.P.R., which guarantees the interest, the total amount of bonds outstanding at any one time not to exceed $20,000 per mile of line constructed or under contract.

Authorizing the construction of the following branch lines and extensions of lines: The Moose Jaw branch from main line at Moose Jaw, Sask., north-westerly about 50 miles; the Weyburn branch from Weyburn, Sask., on the north-western extension of the Souris branch to Stoughton on the Arcola-Regina extension of the Souris branch, about 36 miles; an extension of the Stonewall branch

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Franklin, Pa., and Toronto, Ont.

Sole manufacturers of the celebrated GALENA COACH, ENGINE and CAR OILS, and SIBLEY'S PERFECTION VALVE and SIGNAL OILS.

GUARANTEE COST per thousand miles for from one to five years, when conditions warrant it.

Maintain EXPERT DEPARTMENT, which is an organization of skilled railway mechanics of wide and varied experience. Services of Experts furnished free of charge to patrons interested in the economical use of oils.

STREET RAILWAY LUBRICATION A SPECIALTY.

GALENA RAILWAY SAFETY OIL

Made especially for use in Headlights, Cab, Classification and Tail-lights, and for Switch and Semaphore Lamps. Burns equally well with the long time as with the one day burner, with or without chimney, as the burner requires.

Is pure water white in color; high fire test; low cold test, and splendid gravity.

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CHARLES MILLER,

PRESIDENT.

from Teulon northerly, about 20 miles; an extension of the West Selkirk branch from Winnipeg Beach to Gimli, Man., about 10 miles, and the Lauder branch from Lauder, Man., on the Souris branch westerly to Broomhill, about 20 miles; and authorizing the issue of 4% consolidated debenture stock not exceeding £3,000 a mile to pay for the construction of the same.

Authorizing the directors to enter into such agreements with the city of Winnipeg as may be necessary to give effect to the company's proposal to give $200,000 either in 10 annual instalments of $20,000 each, or 20 instalments of $10,000 each, towards providing an efficient water supply for the city, in the event of the proposal being accepted by the council.

C. H. Mackay, T. Skinner, Lord Strathcona, and Sir Thos. G. Shaughnessy, were re-elected directors for four years. After the shareholders' meeting, Sir. Wm. C. Van Horne was re-elected Chairman of the Board; Sir Thos. G. Shaughnessy, President, and D. McNicoll, Vice-President, and the following were appointed the Executive Committee: Sir Wm. C. VanHorne, Chairman; Lord Strathcona, B. Angus, E. B. Osler, Sir Thos. G. Shaughnessy, D. McNicoll.

Orders by the Railway Commissioners.

The following orders have been issued by the Board of Railway Commissioners:

1326. July 18.—Fixing the tolls to be charged by the C.P.R. for switching freight and live stock traffic in carloads from and to the G.T.R. belt line, London, Ont. (Sept., pg. 517.)

1327. Aug. 3.—Authorizing the C.P.R. to construct a branch line to the Canada Sugar Refining Co.'s property, Montreal.

1328. Aug. 1.—Freight on railway ties. (Sept., pg. 517).

1329. Aug. 4.—Ordering the Niagara, St. Catharines and Toronto Ry. and the G.T.R. to pay a certain proportion of amount expended by the municipal corporation of St. Catharines in the construction and erection of Queenston St. bridge, St. Catharines, Ont., also future cost of maintenance of bridge and approaches thereto, and costs of application.

1330. July 25.—Authorizing the Napierville Junction Ry. to cross the tracks of the G.T.R.

1331. July 31.—Authorizing the Vancouver Westminster and Yukon Ry. to deviate a portion of its located line between Westminster Ave., Vancouver city, and the Second Narrows.

1332. July 31.—Authorizing the Guelph and Goderich Ry. to open for public traffic a portion of line between Guelph and Elmira, Ont., 16 miles.

1333. May 9.—Ordering the G.T.R. to construct a bridge carrying the line of Ferrie St., Hamilton, Ont., over its tracks, the level crossing to be closed.

1334. May 9.—Authorizing the city of Hamilton to construct a bridge for foot passengers only across the G.T.R. main line at Ferguson Ave., Hamilton.

1335. May 9.—Authorizing the city of Hamilton to open Emerald St. across the main line of the G.T.R. in Hamilton by overhead bridge.

1336. May 9.—Authorizing the G.T.R. to construct a branch line in Hamilton connecting the northern division with the main line. After the city closes Strachan Ave. to public traffic, the G.T.R. to construct a sidewalk 6 ft. wide from the westerly side of Wellington St. to the easterly side of Ferguson Ave.

1337. Aug. 7.—Authorizing the Kaministikwia Power Co. to erect transmission lines across the tracks of the C.P.R. and Canadian Northern Ry. at West Fort William, Ont.

1338. Aug. 7.—Authorizing the East Middlesex Telephone Co-operative Association to cross the G.T.R. tracks in four places.

1339. Aug. 9.—Authorizing the C.P.R. to construct a branch line or spur from a point on the south-east quarter of sec. 35, tp. 12, range 16, west first meridian, on the southern boundary of the right of way of the MacGregor branch, distance about 520 ft. easterly from the line between the east and the west halves of sec. 35, tp. 12, range 16, west of the first meridian, thence southwesterly and westerly for a distance of about 337 ft.

1340. Aug. 9.—Authorizing the C.P.R. to construct, operate and maintain a branch line or spur in the city of Moose Jaw, Sask.

1341. Aug. 9.—Authorizing the C.P.R. to construct, operate and maintain a branch line in Winnipeg, on the western side of McPhillips St.

1342. Aug. 9.—Authorizing the C.P.R. to construct, operate and maintain a branch line or spur from the Teulon branch, Man.

1343. Aug. 9.—Authorizing the C.P.R. to construct, operate and maintain a branch line or spur to the Calgary Brewing and Malting Co. property at Calgary, Alta.

1344. Aug. 8.—Authorizing the G.T. Pacific Ry. to revise location of line, mileage 84.146 to 100.658.

1345. Aug. 8.—Approving of location of line of C.P.R., mileage 0 to 36.6, Province of Saskatchewan.

1346. Aug. 8.—Authorizing the C.P.R. to divert a highway in Medonte tp., Sudbury-Kleinburg branch.

1347. Aug. 8.—Authorizing the C.P.R. to construct, operate and maintain a branch line in the county of Peterboro, about 1,162 ft. westerly from the western headblock of Peterboro yard.

1348. Aug. 8.—Authorizing the Nicola, Kamloops and Similkameen Coal and Ry. Co. to take possession of certain lands of the C.P.R., one mile east of Spence's Bridge, B.C.

1349. Aug. 8.—Authorizing the James Bay Ry. to operate, construct and maintain a branch line in the town of Parry Sound, Ont.

1350. Aug. 6.—Authorizing the Brandon, Saskatchewan and Hudson Bay Ry. to cross certain highways in the municipality of Morton, Man.

1351. Aug. 8.—Authorizing the C.P.R. to deviate from its located line on the Pheasant Hills branch, mileage 358 to 400.

1352. Aug. 8.—Authorizing the Georgian Bay and Seaboard Ry. location, mileage 49 to 58.

1353. Aug. 9.—Authorizing the Vancouver, Victoria and Eastern Ry. location, mileage 22.87 to 37.00.

1354. Aug. 9.—Authorizing the Vancouver, Victoria and Eastern Ry. standard plans of tunnels.

1355. Aug. 9.—Approving of the Vancouver, Victoria and Eastern Ry. located line from Princeton to Tulamasse, B.C., mileage 40 to 55.99.

1356. July 31.—Wall paper rates. (See Sept., pg. 517.)

1357. Aug. 6.—Authorizing the James Bay Ry. to cross the tracks of the C.P.R. near Wahnapitae, Ont.

1358. Aug. 6.—Authorizing the C.P.R. to cross with its second main track, the track of the Canadian Northern Ry. at Fort William, Ont.

1359. Aug. 6.—Authorizing the G. T. Pacific Ry. to cross the tracks of the C.P.R. and Canadian Northern Rys., West Fort William, Ont.

1360. Aug. 9.—Authorizing the G.T.R. to construct, operate and maintain a branch line to the Knickerbocker Ice Co. premises, Toronto.

1361. Aug. 9.—Authorizing the C.P.R. to construct, operate and maintain certain branch or spur lines in the town of Owen Sound, Ont., to the property of the Carney Lumber Co.

1362. Aug. 9.—Authorizing the C.P.R. to construct, operate and maintain a branch line at a certain point on the Varcoe branch, Man.

1363. Aug. 9.—Authorizing the Port Colborne-Welland Natural Gas and Oil Co. to lay gas pipes or mains under the tracks of the G.T.R. at Argyle St., Caledonia, Ont.

1364. Aug. 9.—Authorizing the Mutual Natural Gas Co., Ltd., to lay certain gas pipes or mains under the tracks of the Grand Trunk in the township of Crowland.

1365. Aug. 9.—Authorizing the Collingwood Town Council to carry a 24 in. sewer pipe under the tracks of the G.T.R. on Birch St., Collingwood, Ont.

1366. Aug. 10.—Authorizing the G.T.R. to construct two branch lines or sidings from the Toronto Belt Line Ry., south of Queen St, Swansea, Ont., to the premises of the Dominion Sewer Pipe Co.

1367. Aug. 10.—Approving of standard plans for steel bridges on the G. T. Pacific Ry.

1368. Aug. 10.—Authorizing the Quebec Central Ry. Co. to construct steel structures on the St. George extension of the Chaudiere Valley branch across Gilbert River and brooks.

1369. Aug. 10.—Authorizing the Vancouver and Lulu Island Ry. Co. to construct two branch lines, one commencing at point on spur, south side of False Creek, Vancouver, B.C., distant 300 ft. from Heather St., thence running easterly a distance of about 900 ft. to the westerly boundary of Bridge St., and the other commencing at a point on said proposed branch line and running easterly about 900 ft.

1370. Aug. 10.—Authorizing the James Bay Ry. to construct a bridge over the Still River, tp. of Wallbridge, district of Parry Sound, mileage 44.4, Parry Sound North, Ont.

1371. Aug. 9.—Approving of change in location of the C.P.R. (lessee of the Toronto, Grey and Bruce Ry.) station at Orangeville, for purpose of enlarging station and affording increased accomodation to the public and traffic on its railway.

1372. Aug. 1.—Compelling the Guelph and Goderich Ry. (C.P.R. lessee) to construct a suitable farm crossing for R. J. Cockerline, at lot 8, con. 10, tp. of Morris, Ont.

1373. Aug. 8.—Approving of diversion of James Bay Ry. through the tps. of Burton, Wallbridge and Mowat, and on Indian Territory, and surveyed territory to French River, district of Parry Sound, Ont.

1374. Aug. 14.—Sanctioning proposed diversion of C.P.R. (Crow's Nest branch) between McLeod, sec. 3, tp. 9, r. 26, w. 4th m., and Lethbridge, sec. 5, tp. 9, r. 21, w. 4th m., province of Alberta.

1375. July 25.—Authorizing the G.T.R. to construct a siding from a point on its railway, west of Haynes St., St. Catharines, Ont., thence northwesterly across John St., to a point on the premises of J. H. Wethey Co., Ltd., south of Welland Ave., St. Catharines, Ont.

1376. Aug. 14.—Authorizing the James Bay Ry. to operate its trains over the lines or tracks of the northern division of the G.T.R. at grade level, at a point near Washago, on Rama Island Ont.

1377. Aug. 16.—Sanctioning located line of the Brantford and Hamilton Electric Ry. from the corner of Markham and Hess streets in the city of Hamilton, to Langford, in the county of Brant, Ont.

1378. Aug. 10.—Approving standa passenger tariff C.R.C. no. 1, of the Cha..iam, Wallaceburg and Lake Erie Ry.

1379. Aug. 10.—Authorizing the Transcontinental Ry. to cross the lines and tracks of the C.P.R. (Quebec and Montreal branch) by means of a subway at a point on said Ry. near St. Basile, county of Portneuf, Que.

DOMINION
ENGINEERING & CONSTRUCTION CO. LIMITED
GENERAL CONTRACTORS

The above picture shows the main entrance to one of the new reinforced concrete factories now building on the cost-plus-a-fixed-sum contract for the American Tobacco Co. in Montreal.

The artistic detail embodied in this work gives evidence of the adaptability of reinforced concrete to architectural effects.

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The architect employing our services is assured of the most satisfactory treatment of his design, while at the same time, the owner under the cost-plus-a-fixed-sum contract, can count with equal security on the stability of his building.

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SOVEREIGN BANK BUILDING - MONTREAL

1380. Aug. 11.—Discriminating rates in B.C. (See Sept., pg. 517.)

1381. Aug. 21.—Sanctioning plans showing details of abutments and superstructure of subway under tracks of Canada Atlantic Ry. on Bank St., Ottawa, Ont.

1382. Aug. 21.—Amending order of July 13, authorizing the Midland Ry. of Manitoba to use the crossing of the tracks of the C.P.R. at Plum Coulee, Man., for the passage of its cars for construction purposes, by providing for the appointment by the C.P.R. of a watchman, or watchmen, at the said crossing.

1383. Aug. 21.—Granting leave to the Brandon, Saskatchewan and Hudson Bay Ry. Co. to use, for the passage of its cars for construction purposes, the crossing of the tracks of the Canadian Northern Ry., near Minto, Man.

1384. Aug. 21.—Granting permission to the Midland Ry. of Manitoba to use, for the passage of its cars for construction purposes, the crossing of the tracks of the Canadian Northern Ry. at Carman, Man.

1385. Aug. 21.—Granting permission to the Brandon, Saskatchewan and Hudson Bay Ry. Co. to use, for the passage of its cars for construction purposes, the crossing of the tracks of the Canadian Pacific, near Carroll, Man.

1386. Aug. 21.—Granting permission to the Midland Ry. of Manitoba to use, for the passage of its cars for construction purposes, the crossing of the tracks of the C.P.R. at Elm Creek, Man.

1387. Aug. 22.—Authorizing the Guelph and Goderich Ry. to construct two branch lines in Elmira, Ont.

1388. Aug. 16.—Authorizing the Ontario Power Co., Ltd., to erect and maintain its wires over the tracks of the G.T.R., the Wabash, the Michigan Central, the Canada Southern, the Niagara, St. Catharines and Toronto, and the Niagara Falls Park and River Rys., at lots 57 and 59, tp. Stamford, county Welland, Ont.

1389. Aug. 15.—Approving of transfer track between the line of the Canadian Northern Ry. and the Qu'Appelle, Long Lake and Saskatchewan Rd. and Steamboat Co.'s railway at Prince Albert, Sask.

1390 to 1400.—Aug. 21.—Authorizing the North American Telegraph Co. to carry its telephone wires across the C.P.R. tracks at Chute, 2½ miles west of Renfrew, 5 miles west of Renfrew, 2 miles east of Eganville, near mile-post 15.3 east of Eganville; across the tracks of the Bay of Quinte Ry. at Deseronto, Ont., about half mile east of Napanee station, and across the G.T.R. tracks at Shannonville, Marysville, 2½ miles east of Cobourg, and a quarter mile east of Salmon River bridge, Milltown, Ont.

1401. Aug. 24.—Authorizing A. L. Craig, St. Paul, Minn., General Passenger Agent Nelson and Fort Sheppard Ry., to prepare and issue tariffs of tolls to be charged.

1402. Aug. 24.—Authorizing A. L. Craig, St. Paul, Minn., General Passenger Agent Red Mountain Ry., to prepare and issue tariffs of tolls to be charged.

1403. Aug. 24.—Authorizing A. L. Craig, St. Paul, Minn., General Passenger Agent Bedlington and Nelson Ry., to prepare and issue tariffs of tolls to be charged.

1404. July 27.—Directing the Guelph and Goderich Ry. to provide an under-crossing where its line crosses John Barr's farm, Blyth, Ont.

1405. Aug. 22.—Authorizing the G.T.R. to construct two branch lines or sidings from its Northern Division, Toronto, north of Wallace Ave., Toronto, south-easterly across Wallace Ave., on to W. H. Farrell's premises, the other to connect with an existing track on G.T.R. property.

1406. Aug. 24.—Granting approval of diversion of a portion of the C.P.R. Pheasant Hills branch, from mileage 299.8 to 331.08 of line previously approved.

1407. Aug. 24.—Authorizing the North American Telegraph Co. to erect 20 telegraph and telephone wires across the G.T.R. tracks at Napanee diamond, Ont.

1408. Aug. 24.—Authorizing the Midland Ry. of Manitoba to construct a bridge over the Assiniboine River near Portage la Prairie, Man.

1409. Aug. 30.—Authorizing the C.P.R. Co. (lessee of the Toronto, Grey and Bruce Ry.) to construct a branch line or spur in Toronto, from the main line siding about 87 ft. north-westerly, measured from the northern side of Ernest Ave. produced; thence south-easterly to lot 92 on Ernest Ave., being the premises of J. G. Gilchrist, a total distance of 285 ft.

1410. Aug. 30.—Authorizing the C.P.R. (lessee of Ontario and Quebec Ry.) to construct a branch line in Galt, from the main line about 78 ft. westerly from eastern side of private lane running through lot 6, 11th con., North Dumfries; thence westerly and south-westerly to P. Gardiner's lumber yard on Harris St., a total distance of 6,577 ft.

1411. Aug. 30.—Authorizing the C.P.R. to construct a branch line or spur, with a switchback therefrom, in Port Moody, B.C., commencing at about the centre of Queen St., on a spur from main line of applicant company, running thence south-easterly, easterly and north-easterly for a total distance of 1,407 ft.; said switchback commencing at chainage 12.07 on said branch, and running thence south-westerly and westerly for a total distance of about 490 ft. to the shore of Burrard Inlet.

1412. Aug. 30.—Authorizing the amendment of order dated Aug. 22, authorizing the construction and maintenance by the Guelph and Goderich Ry. of two branch lines in Elmira, Ont., by striking out the word "two" in the 5th and 6th lines of said order and substituting the word "three" in lieu thereof.

1413. Aug. 30.—Approving located line of the Canadian Northern Ontario Ry. from Hawkesbury Bridge, mileage 1, easterly to the village of St. Andrews, mileage 15.6, Co. Argenteuil, Que.

1414. Aug. 30.—Authorizing the C.P.R. (lessee of the Columbia and Kootenay Ry. and Navigation Co.) to construct a branch line or spur from its main line where it crosses lot 2,628, group one, West Kootenay, about 300 ft. west to the prolongation northerly of the eastern boundary of lot 1395, group one, and thence south-easterly and easterly through lot 1,396, group one, of said district, for a total distance of about 1,300 ft. to the West Kootenay Power and Light Co.'s power house at Upper Donnington Falls.

1415. Aug. 30.—Authorizing the Georgian Bay and Seaboard Ry. to construct a crossing, at rail level, of the James Bay Ry. at mileage 41.8 on the Georgian Bay and Seaboard Ry. near Brechin, Ont.

1416. Aug. 30.—Authorizing the city of Toronto to construct a steel foot-bridge along Wallace Ave., over the tracks of the G.T.R. and C.P.R.

1417. Aug. 2.—Directing the G.T.R. to construct a farm crossing where its railway crosses A. F. John's farm, Londesboro, Ont., in the western half of lot 33, con. 1, 20 ft. from the line fence between the applicant's property and the property of J. Wise.

1418. Aug. 30.—Amending location plan 188 of the Canadian Northern Ontario Ry., approved by order of Board, dated Sept. 18, 1905, by providing between mileage 68 and 69 from Toronto, north, additional space on lot 11, con. B, tp. Mara, for proposed station facilities.

1419. Aug. 30.—Authorizing the C.P.R. to divert the public highway at mileage 119.8 of the Sudbury-Kleinburg branch of the line in tp. Humphrey, Parry Sound district, Ont

1420. Aug. 30.—Approving of location of spur line of the Canadian Northern Ontario Ry., from near French River to Georgian Bay, near Key Inlet, through unsurveyed territory west Mowat tp., Parry Sound district, mileage 0 to 7.25, Key Inlet north.

1421. Aug. 30.—Authorizing the Nicola, Kamloops and Similkameen Coal and Ry. Co. to join its track with the track of the C.P.R. at Spence's Bridge, B.C.

1422. Aug. 30.—Sanctioning the location of a portion of the Nicola, Kamloops and Similkameen Coal and Ry. Co.'s line one mile east of Spence's Bridge; thence westerly for one mile to a junction with the C.P.R. tracks.

1423. Aug. 30.—Authorizing the C.P.R. to construct a branch line or spur from Higgins Ave. spur, Winnipeg, opposite eastern side of Beacon St., westerly and south-westerly across Higgins Ave., through lots 3 and 4, block 56, total distance of 366 ft.

1424. Aug. 30.—Authorizing the C.P.R. (lessee of the Calgary and Edmonton Ry.) to construct two spurs, one commencing on its main line 270 ft. south-westerly from western side of King St., southerly and south-easterly through n.e. ¼ sec. 11, tp. 24, r. 1, w. 5th meridian, and also through s.e. ¼ of said section for a total distance of 3,430 ft., the other commencing on above-mentioned spur 285 ft. south-easterly from eastern side of King St., south-easterly and southerly through s. c. ¼ sec. 11, tp. 24, r. 1, w. of 5th meridian, a total distance of 1,800 ft.

1425. Aug. 31.—Authorizing deviation of a portion of proposed railway of Nicola, Kamloops and Similkameen Coal and Ry. Co. from main line of C.P.R. at Spence's Bridge to Nicola Lake, approved by order 434, dated April 24, 1905.

1426. Aug. 31.—Authorizing the C.P.R. to open for carriage of traffic its diverted line of railway (Crow's Nest Branch) 1 mile west of MacLeod, Alta., running north-easterly to MacLeod, thence south-easterly to the main line, a distance of 3.9 miles.

1427. Aug. 30.—Authorizing the Victoria Lumber and Mfg. Co., Ltd., to cross the track of Esquimalt and Nanaimo Ry. where the Co.'s logging railway intersects the E and N. Ry., in sec. 15, r. 6, Chemainus district, Vancouver Island.

1428. Aug. 31.—Approving plan and profile of bridge carrying the line of Ferrie St., Hamilton, Ont., over the G.T.R.

1429. Aug. 30.—Sanctioning location of James Bay Ry. through Hochelaga Co., mileage 48.05 to 59.04, Hawkesbury East.

1430. Aug. 30.—Sanctioning location of James Bay Ry. through county of Jacques Cartier, mileage 40 to 48.05, Hawkesbury East.

1431. Sept. 5.—Authorizing the C.P.R. to open for traffic the second track of its line of railway from Westport to Neebing, mileage 3 to 8, west of Fort William, Thunder Bay district, Ont.

1432. Sept. 5.—Sanctioning plan of proposed pile trestle of the Klondike Mines Ry. Co., Yukon, over deep ravines.

1433. Sept. 6.—Authorizing C.P.R. to operate its trains across the G.T.R. tracks (Midland branch) near Coldwater, Ont.

1434. Sept. 5.—Authorizing the G.T.R. to construct a siding from its railway north-easterly of Haliburton station, Ont., north-easterly, crossing the Drag River and the public road east thereof to W. Laking's premises.

1435. Sept. 5.—Authorizing the G.T.R. to construct a branch line or siding from its railway south of King St., Orillia, north-easterly along, upon, and across King St. to H. A. Raney's premises.

1436. Sept. 6.—Authorizing the C.P.R. to construct a siding from its St. Jerome branch at or near south-eastern boundary of St. Jerome, Que., south-easterly through lots 199, 197, 196, 195 and 194 of St. Jerome

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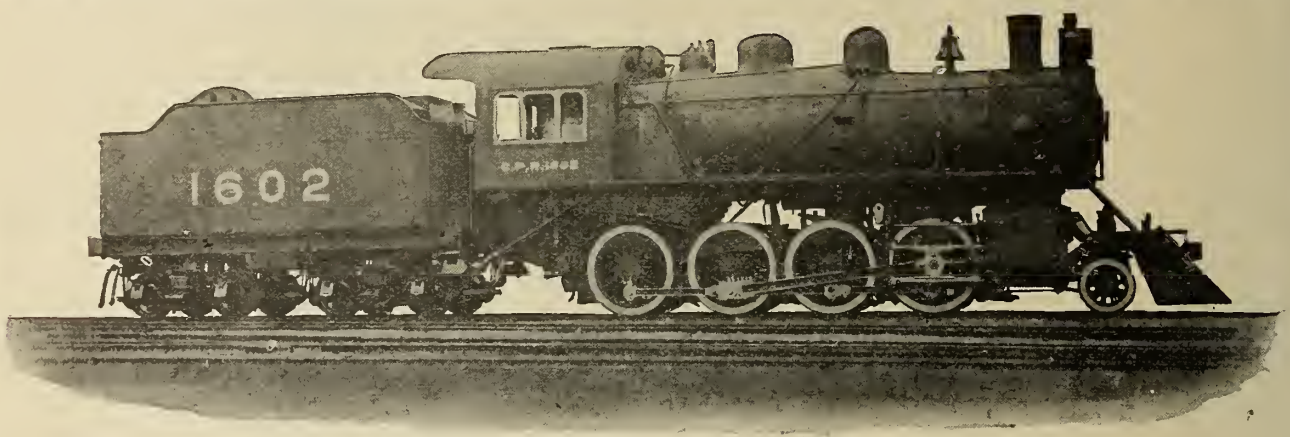

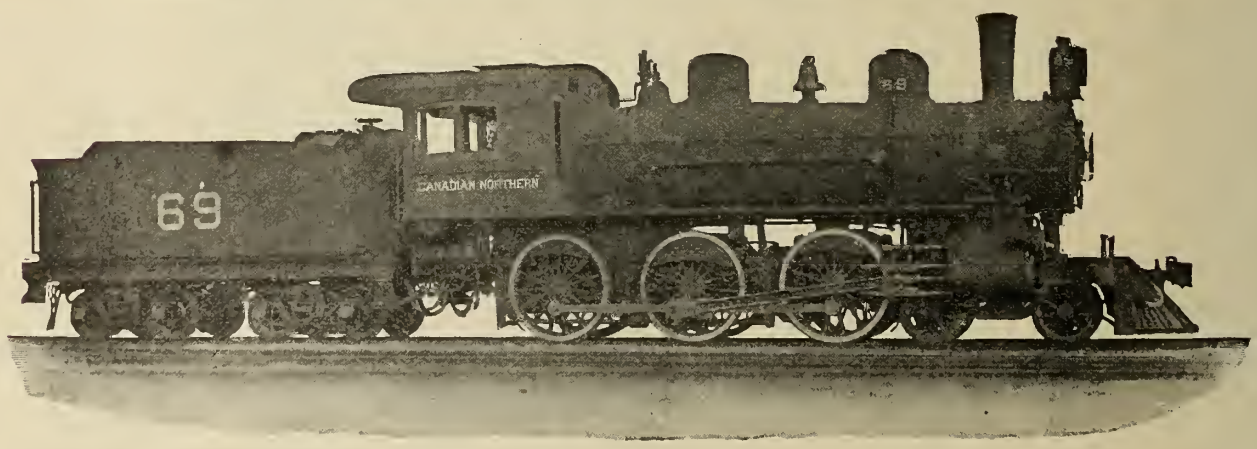

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parish, and through lot 427 of St. Jerome town to the Paper Co.'s property, adjoining the North River.

1437 to 1517, inclusive.—Crossings by Bell Telephone Co.'s wires.

1518. Sept. 11.—Approving plan, profile and book of reference of the G. T. Pacific Ry., from east line, tp. 36 n., r. 16 w., to west line of tp. 39 n., r. 20, w. 3rd meridian, mileage 68.269 to 104.333, sec. 13, district Saskatchewan, Sask.

1519 to 1590, inclusive.—Crossings by Bell Telephone Co.'s wires.

1591. Sept. 17.—Directing the G.T.R. to put in an 8 in. tile across the lands of the Co. from stake marked 14.73 to stake marked 15.17, and a 10 in. drain across its lands from stake marked 32.91 to stake marked 33.36, and to clean out its surface culvert in Harriston, Ont.

1592 to 1605, inclusive.—Crossings by Bell Telephone Co.'s wires.

1606. Sept. 14.—Authorizing the G. T. Pacific Ry. to lay its tracks over the C.P.R. tracks (Brookdale branch), sec. 1, tp. 12 n., r. 11, w. 1st meridian, district of Portage la Prairie, Man.

1607. Sept. 14.—Authorizing the G. T. Pacific Ry. to lay its tracks over the Canadian Northern Ry. tracks (Carberry branch), sec. 1, tp. 12 n., r. 15, w. 1st meridian, district of Brandon, Man.

1608. Sept. 14.—Authorizing the G.T. Pacific Ry. to lay its tracks over the C.P.R. tracks (Prince Albert branch), sec. 16, tp. 36 n., r. 5, w. 3rd meridian, district East Saskatchewan, Sask.

1609 to 1673, inclusive.—Crossings by Bell Telephone Co.'s wires.

1674. Sept. 17.—Approving supplement 16 to Standard Passenger Tariff, C.R.C., no. 1, of the Canadian Northern Ry.

1675. Sept. 15.—Authorizing A. L. Craig, of St. Paul, Minn., Gen. Passenger Agent of the Vancouver, Victoria and Eastern Ry. and Navigation Co., to prepare and issue tariffs of tolls to be charged.

1676. Sept. 15.—Authorizing the Toronto, Hamilton and Buffalo Ry. to construct a siding across Clarke Ave., Hamilton, Ont., to extend easterly from the Belt Line branch of applicant's railway, to or near Emerald St.

1677. Sept. 15.—Sanctioning plans of the G. T. Pacific Ry.

1678 to 1687, inclusive.—Crossings by Bell Telephone Co.'s wires.

1688. Sept. 18.—Approving of plans of proposed tunnel under Detroit River between Windsor, Ont., and Detroit, Mich.

The Canadian Ticket Agents' Association Executive Committee met in Toronto, Oct. 6, to complete arrangements for the annual trip which will this year be to Mobile, Ala. No changes were made from the programme as published in our Oct. issue. The party will assemble at Detroit, Mich., and leave there Nov. 7 at 6.30 p.m. instead of 7 p.m. as previously announced.

The Railway Commission has approved of supplement 16 to local passenger tariff 1, of Canadian Northern Ry., fixing a rate of 3c. a mile for passenger traffic on the Thunderhill branch from Swan River southwesterly to the boundary of Manitoba, and of supplement 1 to the standard freight tariff of the C.P. R. no E. 1, extending the previously approved rates over the Port Burwell branch, formerly the Tillsonburg, Lake Erie and Pacific Ry.

The Saguenay Construction Co. has been incorporated under the Dominion Companies' Acts, with a capital of $20,000 and offices at Montreal, to carry on a general contracting business, to apply for, purchase or otherwise acquire any contracts or concessions for or in relation to the construction, improvement or equipment of railways. The provisional directors are: G. A. Smithers, A. A. Wilson, C. Archer, K.C.; J. G. Grant, J. A. Douglas, Montreal.

RAILWAY DEVELOPMENT.

Projected Lines, Surveys, Construction, Betterments, Etc.

Alsek and Yukon Ry.—The Dominion Parliament will be asked next session to pass an act incorporating a company with this title to construct a railway from near Pleasant Camp, on the Klihini river, at the International boundary of B.C., northwesterly along the valleys of the Klihini, Tatsenshini, Shakwak and Alsek rivers; Kluane lake, Donjek and White rivers, by the most feasible route to the International boundary between Yukon and Alaska. Lewis and Smellie, Ottawa, are solicitors for the applicants.

Atlantic, Quebec and Western Ry.—The New Canadian Co., which is engaged in the construction of this line from Paspebiac towards Gaspe, Que., is selling off the horses it has had on the work since May last. Work for the season has apparently been suspended.

Bracebridge and Trading Lake Ry.—A deputation representing Bracebridge and district waited upon the Ontario Government, Oct. 17, and asked that the provincial bonus to the railway be continued. The bonus was originally granted in 1900, and in 1905 an extension was granted until Dec. 31. The Dominion subsidy for the construction of the line is available until 1908. Consideration of the matter was promised by the Government. We were advised, Oct. 23, that it was expected to begin work at once. G. A. Begy, St. Catharines, Ont., contractor, with an engineer, was going over the route. A. M. Orpen, of the Canadian Construction Co., Toronto, is also mentioned as interested in the work. (April, pg. 193.)

British Columbia.—Application will be made next session of the B.C. Legislature for an act incorporating a company for the purpose of constructing a railway from the confluence of the Shuswap and south fork of the Fraser River up the river to the headquarters of the Swamp River, thence to Keithly Lake via Long, Sandy and Cariboo lakes to Coquette pass, via Cariboo Lake and the north fork of the Quesnelle Lake, through Coquette pass to the dam at the outlet of Quesnelle Lake, across Fraser River to Blackwater, to Kuskya Lake via the Blackwater River, to the Salmon River via the Uhgako River near the forks of the same, thence to the Bella Coola River. Power is also being asked to construct branches to Barkerville and Horsefly, B.C. Wilson, Senkler & Bloomfield, Victoria, B.C., are solicitors for the applicants.

Canada-Newfoundland Tunnel.—The possibility of a railway connection between Canada and Newfoundland is under consideration, and it is claimed that engineers and financial men look upon the project favorably. Those interested in Canada are connected with the Quebec and Lake St. John Ry., and the proposal, as at present outlined, is to extend that line to Belle Isle, on the north shore of the Gulf of St. Lawrence, and construct a tunnel under the straits, which are about 20 miles wide, to Newfoundland, and make a connection with the railway of the Reid Newfoundland Co. The alternative project of constructing a dam across the strait, and laying railway tracks on the top of the wall, is also being discussed by the same people.

Cape Breton Coal, Iron and Ry. Co.—H. Mayhew, President, has resigned, and the affairs of the company are at present under the charge of — Gladstone. It is, however, stated that a general change in the control of the company will be made shortly, and that development operations will be actively pushed. (July, pg. 379).

Crawford Bay and St Mary's Ry.—The Dominion Parliament will be asked next session to pass an act authorizing the construction of an extension of the lines it was previously empowered to construct, from Lethbridge, Alta., south-easterly to Pakowki, thence easterly through Alberta and Saskatchewan, south of the Cypress Hills along Frenchmen River, and north of the Twelve Mile Lake and Willowbunch Lake to Hartney, Man., with power to connect with the Canadian Northern Ry. at Hartney. It is also desired to have authority to increase the capital stock to $25,000,000 and to extend the time for the construction of the railway. J. B. T. Caron, Ottawa, is solicitor for the applicants.

Dawson.—Notice has been given by H. Blitz and L. Auerbach, of Boston, Mass., that they will apply next session of the Dominion Parliament for an act incorporat ng a company for the purpose of constructing a railway from the "southern boundary of the Northwest Territories to Dawson, by way of the Yukon River valley," and branch lines. It is also desired to have power to maintain and operate ferries, to run steamers on navigable waters, to maintain telegraph and telephone lines, to generate and sell electric current, and to conduct a number of other business operations that may legitimatcly be carried on in connection with a railway.

Delaware and Hudson Rd.—The grading on the Napierville Junction Ry., from Rouse's Point on the International boundary to St. Constant, Que., was expected to be completed at the end of Oct. Track was laid, when we were last advised, for 23 miles, and ballasting was being proceeded with rapidly. It is hoped to have the line completed and in operation early in Dec. (Oct., pg. 583.)

Detroit River Tunnel.—The Windsor, Ont., City Council has granted the use of electric current for lighting purposes at night at the tunnel site, so that construction can be gone on with uninterruptedly. The plans for the tunnel construction have been approved by the Railway Commissioners at Ottawa. The tunnel proper is to be 20 ft. in diameter. Its roof will be 40 ft. below the water, and the tracks will be laid upon huge beds of cement. The approaches on either side will be 18 ft. high by 16 ft. 6 in. wide, while the width of the portals will be about 60 ft. The length of the tunnel actually under the river will be 2,625 ft. On the east side there will be an approach of 3,200 ft. of tunnelling and 3,300 ft. of half-tunnelling. The west approach will consist of 2,135 ft. of tunnelling and 1,540 ft. of half-tunnelling. There will be a 2% grade on the west side and 1½% on the east side. A subcontract for digging the trench across the river, in which the steel tubes with their casing and foundation of cement piers will rest, is reported let to the Dunbar and Sullivan Dredging Co., Buffalo, N.Y. The work is to be carried on in such a way as not to interfere with navigation, and is to be commenced at once. (Oct., pg. 577).

Great Northern Ry. (U.S.).—Orders are reported to have been given for the construction of a branch from Ayr, westerly through the Willow Lake country, to cross the Cheyenne River, and strike the Cooperstown branch of the Minneapolis, St. Paul and Sault Ste. Marie Ry. between Cooperstown and Rogers, Minn. From this point it will parallel the main line of the M., St. P. and S.S.M. Ry. to Minot. There is under construction a branch line from near Minot running north parallel with the M., St. P. and S.S.M. Ry. to the International boundary.

Reports from the Pacific coast state a new line from Spokane to Puget Sound ports, by way of Portland, Wash., is being surveyed and that construction will be pushed forward with all speed. The new road will cut out all the gradients of the

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present line in the Cascade mountains, and will cross the Spokane River below Fort Wright, striking in nearly an air line for the Snake River. It will follow the valley of the Snake and the Columbia rivers to Portland. The gradient is expected not to exceed in any case 0.4%, and the curvature 3 degrees. A despatch from Tacoma, Wash., says: "J. J. Hill will build the town of St. James, on Gray's Bay, 16 miles above the mouth of the Columbia river. Mr. Hill's North Bank road, now being built down the Columbia river from Pasco to Vancouver, will be extended westward to Gray's Bay, an ocean port will be created at that point."

Halifax and Southwestern Ry.—With the completion of the connection between the H. and S. Ry. and the old Halifax and Yarmouth Ry., near Barrington, N.S., this system has a length of 370 miles, distributed as follows: Halifax to Yarmouth, 248 miles, including 1.7 miles trackage over the I.C.R.; Lunenburg branch, 7 miles; Caledonia branch, 23 miles; Middleton section to Victoria beach, 93 miles. There are altogether 155 steel bridges on the line, ranging from 25 ft. to 80 ft. spans. The system comprises the old Halifax and Yarmouth Ry. and the old Central Ry. of Nova Scotia, which were acquired by Mackenzie, Mann & Co. in connection with the construction of the Halifax and Southwestern Ry. The charter of the Middleton and Victoria Beach Ry. was also acquired, and the line completed, and the line from New Germany to Caledonia was constructed under the charter of the old Central Ry. (Oct., pg. 583).

Hill Lines in Canada.—A contract has been let to Neil & Moody, of Warroad, Minn., for the clearing of the right of way secured in Winnipeg, Man., for the J. J. Hill railway interests. The site includes a large area of land on Ross avenue, and it is stated that on the land to be cleared there are about 800 buildings, including a number of wholesale warehouses. The work is to be gone on with at once, and it is expected that construction of the railway into Winnipeg will be gone on with in the spring. (July, pg. 383).

Intercolonial Ry.—Considerable progress has been made with the work of putting up the buildings on the site of the new shops at Moncton, N.B. Three tracks have been laid from the main line on to the site for running in materials. These tracks will ultimately form part of the lay-out of the shop yards. A contract has been let to E. A. Walberg, C.E., Montreal, for the erection of passenger car repair shop, passenger car paint shop, and stores and mechanical office building at Moncton, N.B. The cost of these buildings will be about $160,000. The passenger car shops are to be each 50 by 360 ft., and the stores building is to be 50 by 345 ft., three stories in height. The mechanical offices are to be located on the top floor of the stores and office building. These buildings are to be put up entirely of reinforced concrete. (Oct., pg. 583).

London and St. Clair Ry.—Application will be made next session of the Dominion Parliament for an act extending the time within which the lines authorized to be constructed by the company's act of incorporation, passed in 1905, may be completed.

Midland Ry. of Manitoba.—It is reported that the land recently acquired at Portage la Prairie, Man., is for yards, roundhouse, shops, etc., for a divisional point. This land—the Newman farm—is separated from the property previously acquired by the company, by the farm belonging to the home for incurables. A joint station with the Grand Trunk Pacific Ry. is reported to have been arranged for, on a site between Gaddy and Campbell streets. (Oct., pg. 583).

Napierville Junction Ry.—See Delaware and Hudson Rd.

North Shore Power, Ry. and Navigation Co.—The construction operations of the company are being prosecuted, but are being confined to the industrial end of the undertaking. The sawmill and machine shops are now running, and it is expected that the pulp mill will be completed and in operation by Sept. 1, 1907. The railway, which extends from the wharf at Seven Islands Bay on the St. Lawrence River, to the falls of the Mary River, about nine miles, is used for carrying supplies for the construction and lumber camps of the company, and the plant and machinery, etc., for the mills.

Orford Mountain Ry.—The Dominion Parliament will be asked next session for an act extending the time for the construction of the various lines authorized.

Prince Edward Island Ry.—The new car shops at Charlottetown, P.E.I., will be constructed in concrete to 4 in. above the floor, and the remaining height will be brick walls. The roof will be reinforced concrete on steel trusses. The contract has been let to E. A. Walberg, C.E., Montreal. (Oct., pg. 585).

Quebec Bridge and Ry. Co.—There have been erected by the contractors six sections, or 336 ft., and a start has been made upon the seventh section of the cantilever span. It is expected to complete four more sections of the span on the south side this season, which will complete the span to the point where it will be connected, by the centre suspended span, with the cantilever from the north. The false work for the erection of this portion of the span is being gone on with. It is expected to start tracklaying from the north end of the bridge to Sillery, so that material may be brought to the bridge. The plans for the terminals in Quebec are under consideration, but it is not expected that a final decision will be reached in regard to them until about the end of Dec.

Quebec Central Ry.—Progress is being made with construction on the line to St. George, Beauce county, and J. H. Walsh, General Manager, recently stated that the line would be in operation early in Nov. The new roundhouse, etc., at Levis was nearly completed, and considerable progress had been made upon works of improvement at a number of points on the line. Speaking of the branch proposed to be constructed from Scott's Junction to the Quebec Bridge, Mr. Walsh said as the work could be done in six months there was no necessity for being in a hurry about starting it. The work would be commenced as soon as the construction of the bridge was sufficiently far advanced to enable both works to be completed about the same time. (Aug., pg. 455).

Quebec and Lake St. John Ry.—A contract has been let to E. Conway, Quebec, for an extension of the Gosford branch towards the Riviere aux Pins, where considerable settlement has taken place. The contract covers an extension of two miles, the object of the additional construction being to accommodate the shippers of pulpwood, cordwood and square birch. The previous temporary terminus did not reach a good piling ground. The extension of the two miles is located on what will be later on the main line of the Gosford branch when it is pushed to completion. The construction is now started and the line has to be finished by July 1, 1907. The work is medium heavy, gradients 1% and curvature 5°. The La Tuque branch is practically completed, and a train service will be put on at an early date. We were advised Oct. 19, that 24 miles of track had been laid on the branch, and that it was expected to lay up to the 35th mile before winter. This will bring the end of steel to five miles from La Tuque falls, the proposed terminal. The general contractor is Jos. Paquet, and O'Brien, Fowler & Co. are the sub-contractors, working from mileage 24 to La Tuque falls, mileage 40. (May, pg. 255).

Saskatchewan Valley and Hudson Bay Ry.—Application will be made next session of the Dominion Parliament for an act incorporating a company with this title to construct a railway from Edmonton, Alta., northerly and easterly, following the north bank of the North Saskatchewan River to near Smoky Lake; thence following along the north bank of the North Saskatchewan River to Prince Albert, Sask., thence northeasterly to Pelican Lake, or to a point south of Ile a La Crosse Lake; thence easterly to Fort Churchill on Hudson Bay. Short, Cross & Biggar, Edmonton, Alta., are solicitors for the applicants.

St. Maurice Valley Ry.—Construction trains are in operation from Three Rivers to the Grais River, Que., about 15 miles. A bridge is being constructed over the river at this point. The grading on the six miles north of the Grais River to Shawinigan Falls is well advanced. It is expected to have the line completed and in operation to Shawinigan Falls by Dec. 31. An injunction has been obtained by the Canadian Northern Quebec Ry., at Three Rivers, Que., enjoining the contractors for grading the St. M. V. Ry., from continuing work at a crossing where the two lines intersect. The action to make the injunction perpetual is now before the courts. (Aug., pg. 455).

Temiskaming and Northern Ontario Ry.—We have been officially advised that no decision has been reached by the Commissioners respecting the proposal to extend the line to a junction with the route of the National Transcontinental Ry.

Contracts have been let by the Commissioners for the clearing and grading of the three branch lines which it was recently decided to construct. On the Charlton branch from Englehart to Long Lake, 8 miles, the work will be done by the Canadian Construction Co., Montreal; for the Kerr Lake branch from near Cobalt to Kerr Lake, 4 miles, the contract has been let to A. Spencer, Niagara Falls, Ont.; and McQuigg and Hunt, Arnprior, Ont., have been given the contract for the spur from near Haileybury station to the wharf on Lake Temiskaming, 1¾ miles. The tracklaying will be done by the Commissioner's own staff. (Oct., pg. 585).

Vancouver and Coast Kootenay Ry.—Application will be made next session of the Dominion Parliament for an act extending the time for the construction of the authorized line of railway, and for power to extend the line from near Nicola Lake northerly by the most feasible route to the Yellowhead Pass.

Vancouver, Victoria and Eastern Ry.—A large quantity of construction material has been delivered at Cloverdale, B.C., where a large yard is being laid out for the construction of a section of the line easterly from this point. The right of way for a considerable mileage has been acquired and it is reported that construction will be started at once. Tenders have been called for the construction of 50 miles of line easterly from Cloverdale, B.C. The grading on the section of the line between Midway, B.C., and Oroville, Wash., is reported completed, and it is expected that tracklaying will be completed in a month. This piece of line is reported to have been a most difficult one to construct. Midway has an elevation of 2,100 ft. above the sea level; Molson, at the summit of the mountain, is 3,703 ft.; and nine miles below is Oroville, only 900 ft. To get down from Molson to Oroville requires a maximum gradient of 2%. It takes 27 miles of railway to reach Oroville from Molson, a distance of nine miles as the crow flies. (Oct., pg. 585).

York and Carleton Ry.—We have been advised that the grading on the extension westerly for 4½ miles from Stanley, N.B., is nearly completed, and two miles of track have been laid. It is hoped to have the extension completed to Ryan's Brook this year. (Oct., pg. 585).

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C.P.R. Betterments, Construction, Etc.

Terminal Plans at Quebec.—In connection with the recent conference at Quebec about terminals, it is reported that the C.P.R. intends, if possible, to have its own terminals independent of any other railway line. The report further states that the company is considering the desirability of securing large areas of property in the St. Charles River Valley, and utilizing that river with the Beauport beach and Louise Docks, together with the river front from Point-a-Carcey to the Richelieu & Ontario Navigation Co. property, if it can acquire the same, for its steamship service.

Northern Colonization Ry.—Application will be made next session of the Dominion Parliament for an act extending the time for the construction of the company's authorized lines of railway.

Highlands Branch.—The construction on the branch from Highlands, to connect with the manufacturing district along the banks of the Lachine canal, Montreal, has been delayed owing to some local opposition. Track has now been laid to Church st., but it is hoped to get the steel laid on the remaining distance before winter. The total length of the branch is six miles.

Montreal-Toronto Line.—A. G. Ardagh, engineer in charge of surveys being made between Vaudreuil, Que., and Belleville, Ont., has been working in the vicinity of Kingston, with a view of securing a suitable route into the city. (Oct., pg. 575).

Georgian Bay and Seaboard Ry.—A special meeting of the shareholders of the company has been called for Nov. 12 for the purpose of approving of a lease of the company's projected line to the C.P.R., and to decide as to the issue of bonds to provide for the construction of the line.

The Dominion Parliament will be asked next session to pass an act granting an extension of time for the construction of this railway.

Toronto-Sudbury Branch.—H. P. Timmerman, General Superintendent Ontario Division, has inspected the Toronto-Sudbury branch, as far as completed, and it is expected that the line between Bolton, on the Toronto, Grey and Bruce Ry., to Craighurst, 52 miles, will be opened for traffic Nov. 1. (Oct., pg. 575).

Guelph and Goderich Ry.—Trains have been operated on the line between Guelph and Elmira, Ont., 16 miles, for some time, and it is expected that a regular train service will be put on a further 35 miles to Milverton, Nov. 1.

There is a legal fight on at Goderich between the contractors and the G.T.R. respecting right of way. The G.T.R. in laying an additional track to the elevator, scooped away a portion of a hill along which the G. and G. Ry. runs, weakening the trestlework. (Oct., pg. 577.)

Hamilton Offices.—The C.P.R. has secured a 30-year lease at $5,600 a year, with option of purchase at the expiry of the lease for $100,000, on the property at the north-west corner of James and King streets, Hamilton, Ont. The C.P.R. occupies part of the premises at present, and the leases of the other tenants has yet eight years to run. On the expiration of these leases, it is stated that the C.P.R. will erect a large business building.

Walkerton and Lucknow Ry.—The shareholders of this company will be asked, Nov. 12, to approve of a lease of its railway, now under construction, to the C.P.R., and to decide upon the means to be adopted to provide for the cost of construction.

Manitoba and Northwestern Ry.—The Dominion Parliament will be asked at its next session to pass an act extending the time within which the authorized lines may be constructed.

Central Division Branch Lines.—The C.P.R. will apply next session of the Dominion Parliament for an act extending the time for the construction or the branch from Otterburne, Man., on the Emerson branch, southeasterly to near Stuartburn, tp. 2, r. 6. Manitoba; and also for an act authorizing the construction of the following branch lines: (1) from a point in tps. 32 to 34, ranges 21 to 23, w. 2nd m., northerly to Prince Albert, about 130 miles; (2) from the Pheasant Hills branch in tps. 39 or 40, range 19 or 20, w. 3rd m., northerly and westerly towards Battle River, thence westerly to range 5 or 6, w. 4th m., thence southerly and westerly, crossing the Pheasant Hills branch to a junction with the Lacombe branch of the Calgary and Edmonton Ry. in tps. 36, 37 or 38, range 11, 12 or 13, w. 4th m., about 180 miles; (3) from the proposed extension of the Moose Jaw branch westerly and northerly to a junction with the Lacombe branch of the Calgary and Edmonton Ry.; (4) from the Pheasant Hills branch easterly and southerly, tps. 30, 31 or 32, range 17, 18 or 19, w. 4th m., about 130 miles; (5) from the Pheasant Hills branch southerly and westerly for about 75 miles; (6) from Weyburn, on the north-western extension of the Souris branch westerly for about 100 miles; (7) from near Estevan, north-westerly to tp. 4, range 22, w. 2nd m., about 100 miles.

Pheasant Hills Branch.—Grading is being gone on with on this branch, which at present terminates at Strassburg, and it is expected to have the 100 miles into Saskatoon ready for tracklaying this winter. Materials for the construction of a bridge over the Saskatchewan have been collected at Saskatoon, and it is intended to go on with construction at once.

Strathcona.—The agreement between the company and the town council, by which the C.P.R. divisional point is to be located at Strathcona, Alta., in consideration of a free site and exemption from taxes for 15 years, has been signed.

Vancouver Wharves.—R. Marpole, General Superintendent, Vancouver, B.C., informed the Vancouver papers Oct. 2, that instructions had been given to the engineers to prepare for the inclusion of the new jetties on the water front in the estimates for the coming year. The plans provide for the construction of five jetties, each of which will cost $300,000 or $400,000. Whether anything further will come of the matter at present rests with the directors at Montreal, when the appropriations are considered.

Esquimalt and Nanaimo Ry.—The programme of the betterments upon this line is reported to have been decided upon by the C.P.R., and orders given to put the work in hand forthwith. The work includes the filling in of seven wooden bridges between Victoria and Koenigs; putting in four steel spans with masonry abutments at Shawinigan Lake; replacing all the culverts between Victoria and Duncans with concrete pipes; building a 20 ft. stone arch at Millstream, Nanaimo, and filling in the old bridge; building a 12 ft. concrete arch at Chemainus, and filling in old bridge; and relaying the entire track with 60 lb. steel. J. Goodfellow, Superintendent of the line, is reported to have said that the work was to be commenced at once, and as much as possible done during the winter.

Minneapolis, St. Paul and Sault Ste. Marie Ry.—It is reported in Minneapolis, Minn., that it has been definitely decided to extend the line to Seattle, Wash. The suggested route is between the Great Northern Ry. main line and the International boundary. We are advised that the report is without foundation.

G.T.R. Subsidiary Companies.

The annual meetings of the various companies in the United States subsidiary to the G.T.R. were held at Buffalo, N.Y., Sept. 29; Detroit, Mich., Oct. 1, and Chicago, Ill., Oct. 2. The meetings were formal ones for the passing of the annual reports and for the election of directors. Following are the officers and directors of the several companies for the current year:

International Bridge Co.—President, C. M. Hays, Montreal; Vice-President, E. H. Fitzhugh, Montreal; other directors: F. H. McGuigan, W. H. Biggar, K.C.; J. Hobson, J. W. Loud, Montreal; H. W. Sprague, Buffalo, N.Y.; Treasurer, F. Scott, Montreal; Secretary, J. H. Muir, Detroit, Mich.

Grand Trunk Western Ry.—President and General Manager, C. M. Hays, Vice-President, E. H. Fitzhugh; other directors: F. H. McGuigan, Montreal; A. Dixon, Chicago, Ill.; A. W. Wright, Saginaw, Mich.; L. R. Skinner, Valparaiso, Ind.; A. B. Atwater, Detroit; Secretary and Treasurer, J. H. Muir.

Detroit, Grand Haven and Milwaukee Ry.—President, C. M. Hays; Vice-President, E. H. Fitzhugh; other directors: F. H. McGuigan, J. Hobson, J. W. Loud; J. Pridgeon, jr.; A. P. Sherrill, A. B. Atwater, F. W. Egan, Detroit; Secretary and Treasurer, J. H. Muir.

Chicago, Detroit and Canada G.T. Junction Rd.—President and General Manager, C. M. Hays; Vice-President, E. H. Fitzhugh; other directors: W. H. Biggar, K.C.; J. W. Loud, A. B. Atwater; Treasurer, F. Scott; Secretary, J. H. Muir.

Michigan Air Line Ry.—President and General Manager, C. M. Hays; Vice-President, E. H. Fitzhugh; other directors: W. H. Biggar, K.C.; J. W. Loud, A. B. Atwater; Treasurer, F. Scott; Secretary, J. H. Muir.

Toledo, Saginaw and Muskegon Ry.—President and General Manager, C. M. Hays; Vice-President, E. H. Fitzhugh; other directors: F. H. McGuigan, J. W. Loud, C. J. Church, C. W. Middleton, Greenville. Mich.; A. F. Temple, Muskegon, Mich.; Secretary and Treasurer, J. H. Muir.

St. Clair Tunnel Co.—President and General Manager, C. M. Hays; Vice-President, E. H. Fitzhugh; other directors: F. H. McGuigan, J. Hobson, W. H. Biggar, K.C.; J. W. Loud, A. B. Atwater; Treasurer, F. Scott; Secretary, J. H. Muir.

Grand Trunk Junction Ry.—President, C. M. Hays; Vice-President, E. H. Fitzhugh; other directors: J. W. Loud, A. B. Atwater, F. A. Howe, Chicago, Ill.; Secretary and Treasurer, J. H Muir.

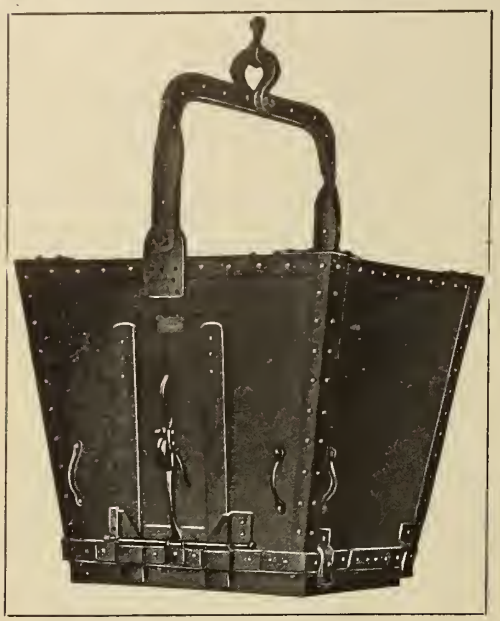
Railway Department Y.M.C.A.—The annual report for the year ended Aug. 31, shows that a considerable extension has been made during the year, 16 new railway association buildings having been opened, and 10 new associations organized, two of them being for street railway men. The membership is over 81,000, and there are 149 buildings exclusively used by railway men. An additional member has been placed on the railway committee, A. Kingman, of Montreal, representing Canadian interests. The work in Canada has so increased that a secretary is now assigned to that portion of the field, and it is expected that the successful work which has been carried on by the G.T.R. for years will be extended to the other important lines in Canada. J. M. Dudley is the Canadian Secretary, his headquarters being Montreal.

The Canadian Northern Ry. has reduced the rate to commercial travellers over its lines from 3 to 2½ cents a mile.

Sir Thos. Shaughnessy, President C.P.R., informed the Winnipeg City Council, Sept. 25, that the company was prepared to give the city an annual donation of $20,000 a year for ten years, or $10,000 a year for twenty years, to assist in securing an adequate water supply for the city.

The Dominion Government, by an order-in-council has put in force regulations under sec. 29 of the act respecting infectious or contagious diseases affecting cattle, for the purpose of eradicating mange in cattle in Saskatchewan and Alberta. The regulations provide for the movement of cattle by rail to and from certain areas; set out the conditions under which such movement shall be made, and what the railway companies are required to do in the way of cleaning and disinfecting cars and yards.

THE CYCLOPEAN IRON WORKS CO.



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and Scale Boxes.

CONTRACTORS' SUPPLIES

SEND FOR OUR NEW CATALOGUE TO-DAY

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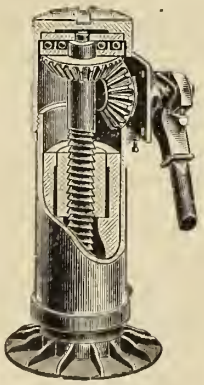
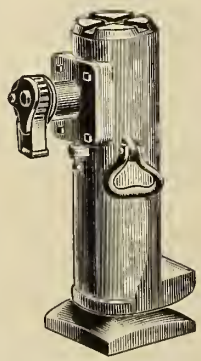
ARE MADE IN CANADA AND SAVE YOU DELAY AND DUTY ON AMERICAN MADE JACKS.

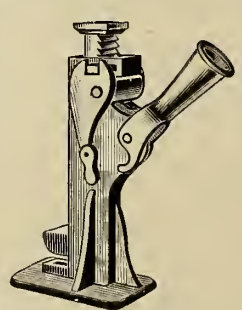


Sectional View

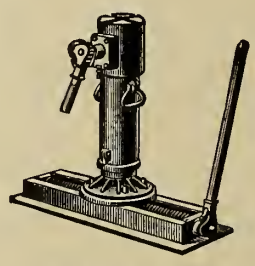


Foot Lift Jack

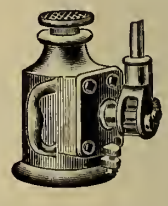
50 Styles 8 to 70 Tons Capacity
Carried in stock for IMMEDIATE DELIVERY



15 Ton Track Jack



Traversing Jack



Journal Jack

MANUFACTURED BY

A. O. NORTON, COATICOOK, QUE.

Stock Carried by W. H. C. MUSSEN & CO., MONTREAL

Railway Rolling Stock Notes.

The Temiskaming and Northern Ontario Ry. has received two baggage and express cars from the Crossen Car Manufacturing Co., Cobourg, Ont.

The Canadian Locomotive Co., Kingston, Ont., has delivered seven 10-wheel locomotives to the Canadian Northern Ry., and one 8-wheel locomotive to the Central Ontario Ry.

The G.T.R., between Aug. 19 and Oct. 6, added to its rolling stock: 5 standard baggage cars, 22 Richmond compound consolidation freight locomotives, and 10 ten-wheel passenger engines.

The general dimensions of the 118, and 1,000 box cars which the C.P.R. is having constructed at its Angus, Montreal, shops, are similar to those of the 102 box cars described in our Sept. issue, pg. 515.

The C.P.R. between Sept. 17 and Oct. 13, placed orders for the following rolling stock at its Angus, Montreal, shops: 2,059 box cars; 200 Hart convertible ballast cars, 38 flat cars, 11 stock cars and two pile-drivers.

The C.P.R. is reported by Winnipeg, Man., papers to be about to make tests of electricity as a motive power for its yard locomotives at Fort William, Ont. We are however officially advised that there is no truth in the report.

The G.T.R. has ordered 15 consolidation freight locomotives from the Locomotive and Machine Co., Montreal, for delivery in May, 1907. These are to be exact duplicates of the 15, general dimensions of which were given on pg. 259 of our May issue.

The Canadian Northern Ry. has ordered 200 Hart convertible ballast cars from the Canada Car Co., Montreal. These cars are to be of similar dimensions to the ballast cars ordered by the G.T. Pacific Ry. and described in our Sept issue, pg. 513.

The Canadian Northern Ry. has placed orders for 15 cabooses, 100 flat cars, 60,000 lbs. capacity, and 200 stock cars, 60,000 lbs. capacity, with the Crossen Car Manufacturing Co., Cobourg, Ont. It is also receiving box cars on orders being filled by the same company.

Of the 30 locomotives for which the Canadian Northern Ry. has placed an order with the Canadian Locomotive Co., Kingston, Ont., 15 are to be duplicates of those, general dimensions of which were given on pg. 75 of our Feb. issue. It has not yet been decided as to the type of the other fifteen.

The C.P.R. between Sept. 17 and Oct. 13 received the following rolling stock: three locomotives, 10 first-class cars, two baggage cars, 552 box cars, six steel coal cars, four hand derrick cars, three passenger refrigerator cars from its Angus, Montreal, shops; and 37 vans from its Farnham, Que., shops.

The 10 smoking and baggage cars which the C.P.R. is having constructed at its Angus, Montreal, shops, will be 65 ft. long, and 9 ft. 10½ in. wide over sills, and will have a capacity of 40 passengers in the smoking room. There will be a wide vestibule at the smoking end, but no platform at the baggage end.

The Canadian Northern Ry. has placed an order for 500 box cars with Rhodes, Curry & Co., Amherst, N.S., in addition to the 1,000 box cars mentioned in our last issue. These cars are M.C.B. standard for 60,000 lbs. capacity, and the special equipment includes Simplex bolsters and brake beams, and Westinghouse air brakes.

The C.P.R. parlor cars, two of which are under construction at its Angus, Montreal, shops, will be 72 ft. long by 9 ft. 10½ in. wide over frames. The floor plan has not been finally approved, but it will probably provide for a side vestibule at one end and an observation platform at the other. They will be provided with armchairs, and otherwise will be similar to the dining and sleeping cars.

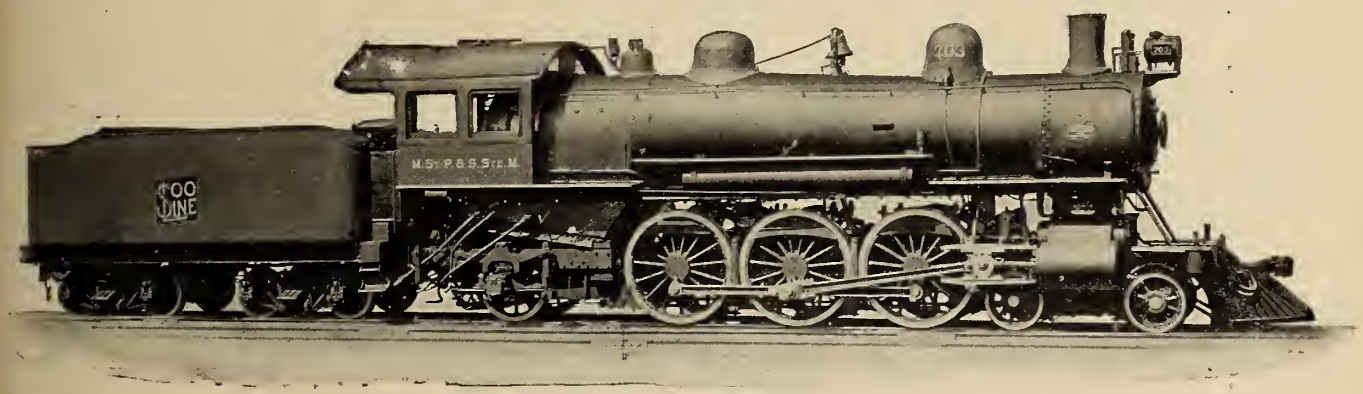
The dimensions and general specifications of the 20 first-class cars without smoking room, and 20 first-class cars with smoking room, which the C.P.R. is having constructed at its Angus, Montreal, shops, are indentical with those of the 15 and six similar cars described in our Sept. issue, pg. 515. The five dining cars under construction are also similar to the five described on the same page. The Gold heating system is fitted to these cars.

The specifications for the 30 first-class suburban cars which the C.P.R. is having constructed at its Angus, Montreal, shops, provide for: length, 65 ft.; breadth, 9 ft. 10½ in.; accommodation, 72; body and underframe, wood; axles and brasses, 5 by 9 in.; springs, 38 in. quadruple elliptic; wheels, 36¼ in., steel tyred; trucks, four-wheel passenger; Simplex brake beams with adjustable heads; Westinghouse high speed air brakes; seats wheeler, upholstered in rattan; Gold heating system.

The C.P.R. is having constructed at its Angus, Montreal, shops, 20 sleeping cars to have a capacity of 12 sections, staterooms and smoking room. The body and underframe are of wood; axles, 5 by 9 in., M.C.B.; bolsters, double; brake beams, Simplex with adjustable heads; brake shoes, cast iron; brakes, Westinghouse air; brasses, 5 by 9 in., M.C.B.; Gold heating system; M.C.B. standard journal boxes; C.P.R. standard passenger car roof covered with canvas; springs 38 in., double elliptic; trucks, six wheel, 5 by 9 in.; wheels 36¼ in., steel tyred. It is also constructing 20 colonist sleeping cars to have a capacity of 18 sections, equipped similarly and provided with acetylene lighting.

The general specifications for the 10 convertible ballast cars which the C.P.R. is having built at its Angus, Montreal, shops provide that the cars shall be of the ordinary Rodgers-Hart convertible ballast type and can be made so as to dump either at the side or in the centre of the track. They are, however, made of standard length and width so as to enable them to be used for carrying rails, etc. The cars are to be of wood, 36 ft. 8 in. over end sills and 40 tons capacity; axles, 5 by 9 in., M.C.B.; journal bearings, 5 by 9 in.; trucks all steel, diamond pattern; 33 in. cast-iron wheels; Simplex body and truck bolsters, and brake beams, Susemihl side bearings, C.P.R. standard spring and Westinghouse air brake.

G. R. Joughins, Superintendent of Motive Power, Intercolonial Ry., who has been in Europe looking into the steam railway motor car situation, is said, according to an Ottawa press dispatch, to have reported favorably on those operated by the Great Western Railway in England. Each motor car is of 216 horse power, and draws four or five coaches at the rate of about 40 miles an hour. The motor car is placed in the centre with two coaches on each end and runs backwards and forwards. The train is controlled by a conductor from either end, the fireman being stationed on the motor car itself. The service given is pronounced excellent. The Canadian Government railways will in all likelihood require 10 motor cars, and the first three will, it is said, be placed in operation next spring at Halifax, Moncton, and St. John, N.B., respectively. Another press report from Moncton, N.B., says that Mr. Joughins did not find any motor cars which he considered suitable for the I.C.R. or the P.E.I.R., and consequently no order was placed. Mr. Joughins returned to Moncton Oct. 20.



PACIFIC TYPE LOCOMOTIVE BUILT FOR THE MINNEAPOLIS, ST. PAUL AND SAULT STE. MARIE RY., BY THE AMERICAN LOCOMOTIVE CO.

The general dimensions of the 30 10-wheel locomotives for which the C.P.R. has placed an order with the Locomotive and Machine Co. of Montreal, for delivery in Dec., 1906; Jan. and Feb., 1907, provide as follows:

WEIGHT.—On drivers, 141,000 lbs.; total 190,000 lbs.

CYLINDERS.—Diameter, 22½ in.; stroke of pistons, 28 in.

WHEELS.—Diameter of drivers. 63 in.; tyres, Krupp crucible for driving and tender wheels; Krupp openhearth for truck wheels; centres, cast steel.

BOILER.—Type, radial stayed, wagon top; working steam pressure, 175 lbs. per sq. in.; heating surface, 2,413 sq. in.

TUBES.—No., 240 of 2 in. diameter, and 24 of 5 in. diameter; length, 14 ft. 4 in.

FIREBOX.—Length, 102⅜ in.; width, 69⅞ in.; material, C.P.R. special; grate area, 40 sq. ft.

TANK.—Capacity, 5,000 imperial galls. water and 10 tons coal.

SPECIAL FITTINGS.—Vaughan-Horsey superheater; Westinghouse air brakes; Steel, Peech and Tozer axles; Simplex brake beams; C.P.R. standard brake shoes, journal bearings, and springs; Gold steam heating equipment.

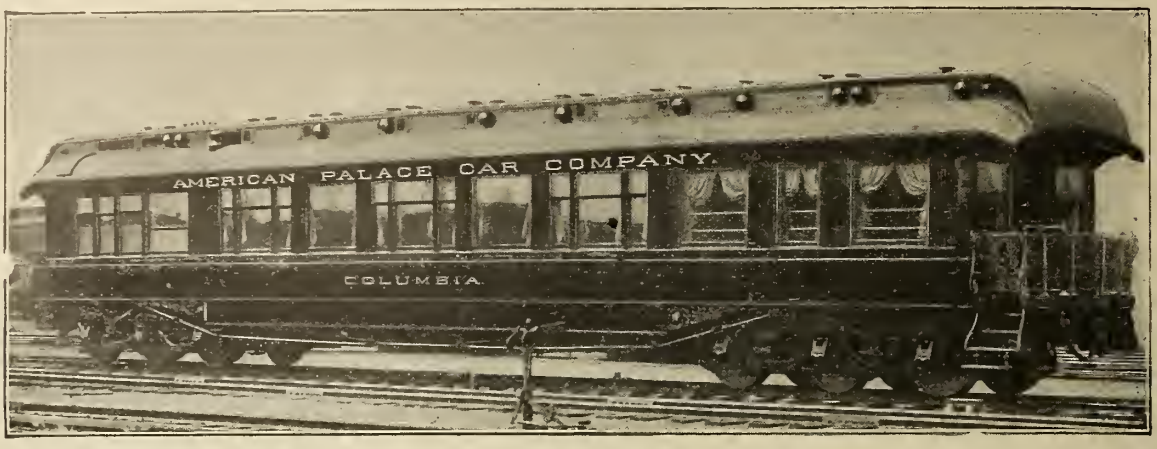
The general specifications of the 20 consolidation locomotives to be built by the Locomotive and Machine Co. of Montreal, and the 10 similar engines ordered at its Angus, Montreal, shops, by the C.P.R., provide as follows:

WEIGHT.—On driver, 163,700 lbs.; total, 186,200 lbs.

CYLINDERS.—Diameter, 22½ in.; stroke of piston, 28 in.

VENTILATION—SANITATION—COMFORT—SAFETY

THE AMERICAN PALACE CAR COMPANY



Exterior of the Private Car "Columbia" now in Commission Demonstrating the Advantages of the New System of Combined Sleeping, Parlor and Dining Car owned by the Company. Protected by Patents in the United States, Canada and Foreign Countries.

Operating a new system of convertible parlor and sleeping cars whereby the beds are lowered into ventilated, steel-lined, dust-proof receptacles underneath the car, affording the passenger the advantage of an open parlor, with movable chairs, sofas, etc., by day, with no semblance of a sleeping car.

Over 100 of these cars now under construction or ordered for operation on American and Canadian railroads. Prospectus and full particulars free on application.

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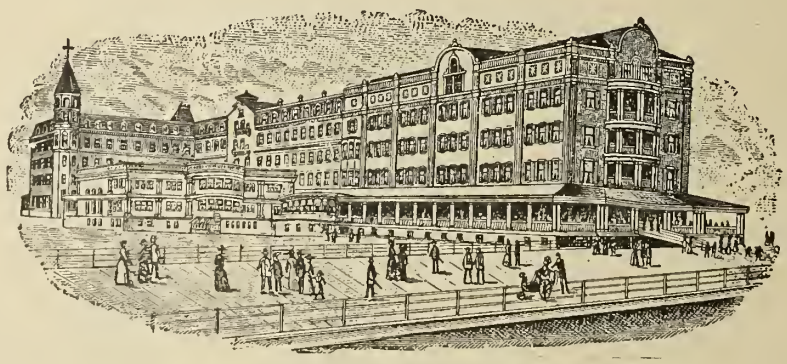

Hot and cold sea and fresh water in all baths. Running water in bedrooms. House thoroughly and completely appointed with every known modern equipment. Seventy-five private baths. Illustrated booklet. Capacity 450. Unobstructed view from all rooms. Golf privileges to guests over the famous Atlantic City Country Club Course.

D. S. WHITE
PRESIDENT

Traymore Hotel Company
CHAS. O. MARQUETTE - MANAGER

WHEELS.—Diameter of drivers, 58 in.; diameter of tender wheels, 33 in.; tyres, Krupp crucible for drivers; Krupp openhearth for engine truck wheels, and cast iron for tender wheels; wheel centres, cast steel.

BOILER.—Type, radial stayed, wagon top; working steam pressure, 175 lbs. per sq. in.; heating surface, 2,216 sq. ft.

TUBES.—No., 24 of 5 in. diameter; 240 of 2 in. diameter; length, 14 ft, 2½ in.

FIREBOX.—Length, 96⅝ in.; width, 65¼ in.; material, C.P.R. special; grate area, 43 sq. ft.

TANK.—Capacity, 10 tons coal and 5,000 imperial galls. water.

SPECIAL FITTINGS.—Westinghouse air brakes; Steel, Peech and Tozer axles; Simplex brake beams; Vaughan-Horsey superheater; Gold steam heating equipment; C.P.R. standard brake shoes, journal bearings, and springs.

The G.T.R. recently placed an order with the Locomotive and Machine Co. of Montreal for a total of 55 Richmond compound consolidation engines, which are being delivered as soon as they are turned out, and all of which will be in service on different divisions of the system before the end of the year. A number of these locomotives are now in freight service showing excellent results. They are large and powerful machines and as large as any on the continent except those used in heavy mountain service, and are 40 000 lbs. heavier than the compound freight engines that have been used as the G.T.R. standard in the past. The Richmond compound was decided upon in preference to the simple engine on account of practical tests having shown that locomotives of this class effect a saving of from 20 to 25% in fuel without any corresponding increase in the cost of maintenance. These locomotives have a calculated tractive power of 36,000 lbs. and a haulage capacity of 5,723 tons in freight cars on the level track at a normal speed, and a haulage capacity of 1,300 tons on a 1% grade. They will haul from 350 to 400 tons more than the ordinary standard mogul engines. The size of the cylinders is 22½ in. x 35 in. x 32 in.; the driving wheels are 63 in. diameter; the total weight of the locomotive and tender, 354,500 lbs. The capacity of tender is ten tons of coal and 7,000 gallons of water.

The question of the extension of immigrant rates to points west of Calgary, Alta., was discussed with Sir Thos. G. Shaughnessy, President C.P.R., recently, and he promised that it would receive consideration.

The Imperial Privy Council is expected to give a decision at the November sittings upon the appeal which involves the validity of the Dominion statute declaring it unlawful for a railway company to contract itself out of liability to its employes for negligence.

The Provincial Contracting Co. has been incorporated under the Manitoba Companies' Acts, with a capital of $150,000 and offices at Winnipeg, Man., for the purpose of earrying on a general contracting business, taking over the business of any contractor; to acquire lands and develop the same by constructing tramways, wharves, docks, elevators, etc. The provisional directors are: D. W. Colvin, J. Arbuthnot, W. M. Bannatyne, J. C. McGavin, G. A. Broadbent, J. M. Savage, F. C. Shortbridge, Winnipeg, Man.

The Canadian Securities Handbook, published by the Financier and Bullionist, 54 Wool Exchange, London, Eng., at one shilling, gives a list of Canadian companies the securities of which are dealt in upon the British exchanges. The companies, in regard to which particulars are given, include 13 banks, seven electrical power concerns, seven financial corporations, three insurance companies, 15 industrial companies, five land-owning companies, 18 steam railways, six electric railways, and five Canadian-controlled companies in Cuba, Mexico and South America. A directory of directors is given, which shows, following the name of each director, the various companies upon the board of which he has a seat.

November Birthdays.

Many happy returns of the day to:

A. B. Atwater, Assistant to the 2nd Vice-President and General Manager G.T.R., for lines west of Detroit and St. Clair rivers, Detroit, Mich., born at Sheffield, Ohio, Nov., 1845.

W. F. Brougham, Local Right-of-Way and Lease Agent C.P.R., Vancouver, B.C., born in Westmoreland, Eng., Nov. 25, 1865.

M. J. Butler, Deputy Minister of Railways and Canals, Ottawa, born at Deseronto, Ont., Nov. 19, 1856.

J. R. Cameron, Superintendent District 1, Canadian Northern Ry., Port Arthur, Ont., born at Truro, N.S., Nov. 5, 1865.

F. Conway, General Freight and Passenger Agent Kingston and Pembroke Ry., Kingston, Ont., born at Ernestown, Ont., Nov. 19, 1850.

W. L. Creighton, Advertising Agent Intercolonial Ry., Moncton, N.B., born at Derby, Eng., Nov. 9, 1871.

W. Downie, General Superintendent C.P.R. Atlantic Division, St. John, N.B., born at Rock Currie, Ireland, Nov. 12, 1850.

L. Drago, Canadian Passenger Agent New York Central Rd., Toronto, born in Raleigh Tp., Kent County, Ont., Nov. 7, 1860.

C. Drinkwater, Secretary and Assistant to the President, C.P.R., Montreal, born at Ashton-under-Lyne, Eng., Nov. 17, 1843.

Jos. Dubrule, Jr., Manager Canadian Pacific Car and Passenger Transfer Co., Prescott, Ont., born at Spencerville, Ont., Nov. 14, 1872.

F. W. Flanagan, General Passenger Agent C.P.R., London, Eng., born at Kingston, County Dublin, Ireland, Nov. 23, 1862.

C. R. Hosmer, director C.P.R., born at Coteau Landing, Que., Nov. 12, 1851.

J. McGillivray, Superintendent Inverness Ry. and Coal Co.'s lines, Inverness, N.S., born at Nairn, Scotland, Nov. 13, 1867.

Jas. McLerie, Northwest Agent, Montreal and Lake Superior Line, Winnipeg, Man., born at Kilbarchan, Scotland, Nov. 6, 1850.

C. Murphy, Superintendent C.P.R., Toronto, Ont., born Nov. 20, 1865.

F. Nicholls, President Niagara, St. Cathrines and Toronto Ry., director Canadian Northern Ry., born in England, Nov. 23, 1856.

P. A. Peterson, Chief Engineer Guelph and Goderich Ry., Goderich, Ont., born at Niagara Falls, Ont., Nov., 1839.

H. J. Pettypiece, C.P.R. ticket agent, Forest, Ont., born near Amherstburg, Ont., Nov. 11, 1855.

J. Rennie, Master Mechanic Caraquet Ry., Bathurst, N.B., born at St. John, N.B., Nov. 1, 1858.

W. G. Roche, contracting freight agent Canadian Pacific Despatch, Detroit, Mich., born Nov. 3, 1877.

J. J. Rose, Travelling Passenger Agent C.P.R., Toronto, born there Nov. 22, 1870.

J. D. Rowe, Treasurer Central Ontario Ry. at Trenton, Ont., born at Ameliasburg, Ont., Nov. 7, 1864.

H. P. Sharpe, General Agent Dominion Express Co., Toronto, born at Brockville, Ont., Nov. 24, 1864.

G. H. Shaw, Traffic Manager Canadian Northern Ry., Winnipeg, Man., born at Smith's Falls, Ont., Nov. 25, 1859.

J. C. Shields, Superintendent Mineral Range Rd., Hancock, Mich., born at St. Mary's, Ont., Nov. 29, 1863.

F. M. Spaidal, Superintendent Canadian Northern Ontario Ry., Toronto, born at Gananoque, Ont., Nov. 13, 1858.

J. Sparks, Assistant General Baggage Agent C.P.R., Winnipeg, Man., born Nov. 25, 1874.

H. P. Timmerman, General Superintendent C.P.R., Ontario division, Toronto, born at Odessa, Ont., Nov. 6, 1856.

Arthur White, ex-Division Freight Agent G.T.R., at Toronto, born at Hadleigh, Suffolk, Eng., Nov. 17, 1840.

TRADE AND SUPPLY NOTES.

The matter which appears under this heading is compiled, in most cases, from information supplied by the manufacturers of, or dealers in, the articles referred to, and in publishing the same we accept no responsibility. At the same time we wish our readers to distinctly understand that we are not paid for the publication of any of this matter, and that we will not consider any proposition to insert reading matter in our columns for pay or its equivalent. Advertising contracts will not be taken with any condition that accepting them will oblige us to publish reading notices. In other words, our reading columns are not for sale, either to advertisers or others.

The Canadian Westinghouse Co. has issued a circular describing its type S. dynamos and motors for direct current.

The American Locomotive Co. has issued an illustrated booklet describing its consolidation type freight locomotives weighing less than 175,000 lbs.

G. R. Duncan, Manager of the Canadian Iron and Foundry Co.'s plant at Three Rivers, Que., has been appointed engineer-in-charge of the construction of the plant being erected by the company at Fort William, Ont.

J. L. Harrington, at present chief engineer of the Locomotive and Machine Co. of Montreal, will, it is said, shortly resign that position for the purpose of entering into a partnership with J. A. L. Waddell, of Kansas City, Mo., as a consulting engineer.

The Chicago Pneumatic Tool Co. has issued a booklet showing some of the users of its Franklin air compressors throughout the world, arranged geographically, for the convenience of persons desiring to inspect the company's installations in their respective localities.

The Chicago Pneumatic Tool Co. is adding another 150 ft. to the machine shop of its Franklin, Pa., plant, which will increase its capacity from 55 to 75 air compressors a month. Extensive improvements and additions to this plant were made earlier in the current year.

The Locomotive and Machine Co., of Montreal, is having a 300 ft. extension added to its shops at Longue Pointe, Montreal. The present extension is being made to the locomotive and machine shops, but it is intended to make extensive additions to the structural steel and bridge shops.

The Robb Engineering Co., Amherst, N.S., and the Robb-Mumford Boiler Co., South Framlingham, Mass., have arranged terms of amalgamation, and the resolution confirming the arrangement was submitted to the shareholders of the latter company, Oct. 23. D. W. Robb is Managing Director of both companies.

The Ontario Wind Engine and Pump Co., Toronto, is doing a large foreign trade. It is about to ship two 16 ft. airmotor outfits, complete with irrigation pumps, to Cairo, Egypt, this order following a large one shipped a short time ago. It lately received an order for a 40 ft. Halliday windmill, the largest size made in wooden wheels, for shipment to Chili, South America, via England. The company is making a good exhibit in New Zealand.

The Mica Boiler Covering Co., Montreal, reports some important installations, one of the principal being at the city incinerator plant, Brooklyn, N.Y., where a 5 in. steam line, 1,400 ft. long, which supplies excess steam to a neighboring brewery, has been covered with 1¼ in. mica pipe covering. Other orders include a cold storage plant at the Hamilton Powder Co.'s mills, Belœil, Que., and work at the Outrement convent near Montreal and the Canadian Breweries, Ltd.

H. B. Ayers has been appointed Manager of the Locomotive and Machine Company of Montreal, in charge of the locomotive and structural steel departments, with head-

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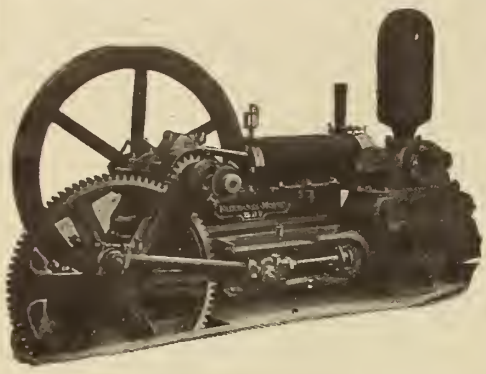

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quarters at the Imperial Bank Building, Montreal. He was born at Westerley, R.I., Nov. 10, 1872, is a machinist by trade, has the degree of mechanical engineer from Lehigh University, and has been in the locomotive business since 1896. S. T. Callaway, heretofore Manager at Montreal, will be transferred to the American Locomotive Co.'s New York office.

Robert W. Hunt & Co., Bureau of Inspection, etc., Chicago and Montreal, announce that they have engaged the services of E. H. Lynde, who for years was connected with the Lackawanna Steel Co., in charge of its Bessemer Steel Rail Department at Scranton, Pa. He will assume direct charge of the departments of R. W. Hunt & Co.'s business which were under the immediate direction of their lately deceased partner, W. Fiero. Under the terms of the partnership, Mr. Fiero's widow and children will continue to enjoy his interests in the business for three years following his death.

National Transcontinental Railway

A conference between the Commissioners for the National Transcontinental Ry., representatives of the other railway lines having interests in Quebec, the marine interests, and others, for the purpose of discussing the question of railway terminals, etc., at Quebec, was held in that city, Oct. 12. The matter was fully discussed and a committee was appointed, consisting of one representative from each of the railway interests, steamship companies, presidents of Harbor Commission and the Board of Trade, E. C. Fry, Lloyd's agent, Mayor of Quebec, Quebec Bridge and Railway Co. The Chairman of the N.T. Ry. Commission submitted the following general suggestions for the committee to work upon:

That the south shore roads—the G.T.R., I.C.R., Quebec Central and Delaware & Hudson, and also the G.T. Pacific and Canadian Northern, should come into the city from the bridge by way of the coves; docks and freight yards being built between Diamond Harbor and Sillery, and a union passenger station for these roads at Champlain market, adjacent to the proposed new ocean steamship docks, with an elevator to the upper town.

That the C.P.R., Quebec Railway, Light & Power Co. and Quebec & Lake St. John roads, if they prefer to do so, retain each their present stations, they being well situated for their business, all being in the centre of the city and nearer to their clients than they would be at Champlain market.

That a track connection be built between St. Andrew St., the Louise docks and the Champlain market, either along Dalhousie St., or preferably on the river front, open to all railways upon the same terms.

That a track connection be made between the Louise Docks, Limoilou and the St. Lawrence bridge along the St. Charles valley, open to all railways upon the same terms.

That all railways to or from Quebec be put upon the same footing as regards the use of the bridge across the St. Lawrence and its approaches.

That all these railways shall each have a representative in the Terminal Company which is to carry out these works.

The committee selected subsequently met under the chairmanship of R. Audette, Vice-President Quebec Bridge and Ry. Co., and appointed A. E. Doucet, E. A. Hoare, and St. G. Boswell, to make plans carrying out the suggestions to lay before the committee for discussion, and the further consideration of the N.T. Ry. Commissioners.

The Commissioners have completed an inspection of the work in progress upon the section of the line between Quebec and La Tuque, going over a considerable mileage between Quebec and Reed, and some miles west of the latter point. Steel rails for this section of the line are being delivered at Quebec by the Dominion Steel Co., Sydney, N.S. It is expected to have about 40,000 tons of rails delivered by the end of the year, and distributed along the route.

The question of the location of the terminals in Winnipeg, for the National Transcontinental Ry., and the G.T. Pacific Ry., is under consideration by the Commissioners, who arrived in Winnipeg, Oct. 18, for the purpose of discussing it with the other railway and local interests involved.

GRAND TRUNK PACIFIC RY.

The Ontario Railway and Municipal Board visited Fort William, Ont., Oct. 6, for the purpose of looking into the question of the location of the Lake Superior Branch, G.T. Pacific Ry., from that town to the main line of the National Transcontinental Ry. from Moncton, N.B., to Winnipeg. The route of the line between Fort William and Port Arthur, and the location of the terminals in these towns were inspected, and evidence was given showing that the valley of the Kaministikwia was the only available route westerly and northerly, and that it was therefore not possible to avoid paralleling the C.P.R. for about 70 miles. The Board reserved decision upon the various questions involved. The investigation was rendered necessary by reason of the fact that the Ontario Legislature voted a grant of 2,000 acres of land a mile to aid the construction of this branch.

Collingwood Schreiber, consulting engineer to the Department of Railways, arrived in Winnipeg Oct. 9, for the purpose of making an inspection of the construction west of Portage la Prairie, Man. He said at Winnipeg: "The construction work this summer has been hampered a little by a lack of labor, the all-round demand for men on farms and railways being greatly in excess of the supply. The various companies which have the western sections under construction, have all made very favorable progress in the face of this adverse circumstance, however, and there has been practically no shortage of material, if a lack of ties during a few weeks in the summer is excepted."

Tracklaying was reported to be going on west of Portage la Prairie at the rate of two miles a day. Over 50% of the grading between Portage la Prairie and Saskatoon, and over 30% between Saskatoon and Edmonton was reported to have been completed Oct 30. The labor situation has been somewhat relieved by the return of the harvest hands from field work, and the arrival of men from Scotland, specially engaged for work on the line.

The contract for the bridge over the North Saskatchewan River at Edmonton, Alta., has been let to the May-Sharpe Construction Co., Winnipeg, Man. The bridge will be of steel on concrete piers, and is estimated to cost about $250,000.

The taxpayers of Edmonton, Alta., have passed a by-law granting $75,000 for the purchase of the right of way for the G.T.P. Ry. in the city.

C. M. Hays, President; F. Morse, Vice-President, and H. Phillips, Secretary, G.T. Pacific Ry., returned to Montreal, Oct. 11, from their trip over the route of the line from Portage la Prairie westerly, and a run from Vancouver to the Pacific Coast terminus at Prince Rupert. At this point the company is clearing 1,000 acres as a town site, and is erecting an hotel at a cost of about $40,000. It is intended to start work at once upon the erection of wharves, aggregating about 2,000 ft. in length. It was the company's intention, said Mr. Hays, at Vancouver, B.C., to construct a line to it some time or other, but it was impossible to say when.

The Canadian Northern Ry. was fined $200 at North Battleford, Sask., Oct. 13, for setting fire to the prairie by sparks from a locomotive.

Canadian Northern Railway Construction.

Canadian Northern Quebec Ry.—D. D. Mann, Vice-President Canadian Northern Ry., in an interview at Ottawa, Oct. 17, stated that the line would be opened from Montreal to Quebec in 1907. The construction work between Garneau Junction and Quebec is being rapidly pushed, and the contractors state that the work already done is well up to anticipations. An injunction has been obtained restraining the St. Maurice Valley Ry. Co. from carrying its tracks across the company's lines in the vicinity of Shawinigan Falls, Que., and the question is still before the courts.

Canadian Northern Ontario Ry.—Grading is reported completed from Hawkesbury westerly to Rockland, Ont., and it is expected that trains will be running over it by May next. When this line is completed into Ottawa, the Canadian Northern Ry. will have a line in operation from Ottawa to Quebec. The eastern connections are being surveyed, one line to Toronto and another to the mouth of the French River. It is expected that contracts for some construction on one or both of these lines will be let early in 1907.

The James Bay Ry., which is one of the constituent lines of the C.N.O. Ry., has been completed to Parry Sound, and a train service with Toronto will be put in operation shortly. The trains will come into the Union Station over the G.T.R. tracks.

The buildings erected at Parry Sound, Ont., consist of an 8-stall round house with a 70 ft. turntable, and a machine shop 41 by 120 ft. Both buildings are of concrete with gravel roof. The machine shop contains forges, hammers, slotters, bolt-cutting machines, drills, planers, lathes, shapers, band saws, rip saws, 150 ton wheel press, 84 in. wheel lathe, and 42 in. wheel borer. This shop is intended for repairs to locomotives only and was built to cover the requirements of the line pending the erection of larger shops. Whether these will be located at Parry Sound or elsewhere will be decided upon in the near future. About 80% of the grading between Parry Sound and Sudbury has been completed and it is expected to get track laid on it in 1907.

Canadian Northern Ry.—A considerable amount of betterment work has been done on the line between Port Arthur and Winnipeg during the past summer. About 500,000 new ties have been put on the roadbed, and in many places the rails have been replaced by those of heavier weight, in order to meet the requirements of the increasing traffic. At Port Arthur it is proposed to practically double the freight shed accommodation; some of the additional sheds, it is expected, will be completed this year.

According to press reports a contract had been let to A. D. McRae, for a 50-mile extension of the Oak Point branch, towards a point north of Gladstone, Man. We have been advised that this is incorrect, but that the line is to be extended northerly about 15 or 20 miles towards Lundar. The work will probably be done in 1907.

It is reported that over 30 miles have been graded in a continuous line from Etomami, Sask., and that much of the grading from mileage 30 to milcage 68 has been done. Tracklaying has been started, and it is hoped to have well on to 50 miles of steel laid before the end of the year. Survey parties are in the field ahead of the graders, and it is reported to be the intention of the company to put in all 16 parties on survey on the route towards Hudson Bay.

A line is being surveyed from Prince Albert to Battleford, Sask., J. Chambers being in charge of the party. Local reports state that construction will be started in the spring with the object of reaching Shellbrook by the end of 1907.

Construction trains are in operation on the branch line northerly towards Athabasca Landing, as far as St. Albert, about seven

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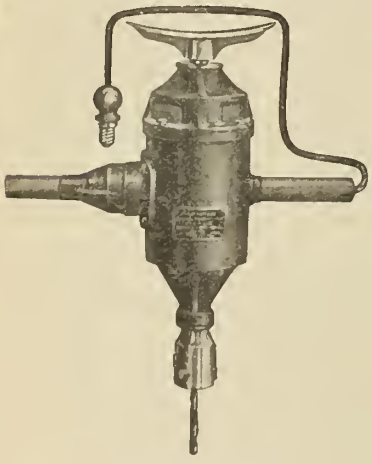

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miles from Edmonton, Alta. It is expected to get over 20 miles of track laid before the end of the year. An unconfirmed press report says that it is expected to let tenders for the grading of the additional 80 miles from the end of the present grade to Athabasca Landing, within a few weeks.

Reports from Edmonton state that C.N.R. survey parties have completed a route from Edmonton to the summit of the Yellowhead Pass. The survey is about 400 miles, although the distance as the crow flies is about 300 miles. A gradient of 0.4% is reported to have been secured. (Oct., pg. 586.)

G.T.R. Betterments, Construction, Etc.

Montreal Level Crossings.—At a meeting of the Montreal City Council, Oct. 9, Alderman Sadler made some references to the question of the abolition of level crossings in the city. He said, as chairman of the council's railway committee, he had had frequent consultations with Mr. Hays on the subject. Some years ago the company offered to elevate the tracks if the city would pay half the cost. The city had no funds at the time, hence the proposal could not be accepted. Recently Mr. Hays said he was in favor of a four-track elevated line being built to Ste. Elizabeth St. in St. Henry ward. At this point the elevated tracks would reach the level. They would then be continued on the ground out to the Victoria Bridge. It was the company's intention to build a new station on the site of the present one. In addition to this the company would likely remodel its big track space in Point St. Charles. For these, and other reasons, Mr. Hays was most anxious that the city should come to terms with the company whereby the level crossings could be got rid of.

Spur Line at St. Lambert.—Plans have been deposited in the Chambly, Que., registry office for a line from the Central Vermont Ry., near its junction with the G.T.R. east of St. Lambert station, to lot 261, St. Antoine de Longueuil, Que.

Kingston, Smith's Falls and Pembroke Ry.—The finance committee of the Ottawa City Council have under consideration the application for a renewal of the bonus of $50,000 voted in 1893. A. T. Drummond explained that the K.S.F. and P. Ry. had sold out to the G.T.R., and was seeking to obtain a revote of aid previously promised. The route proposed to be followed would give a line of 101 miles to Kingston, and a fine country would be opened up. Three years were asked for the construction of the line, as there were about 21 miles of rock cutting. (Oct., pg. 583).

Waterdown Road Bridge.—The company propose to raise the bridge at Waterdown road, Hamilton, Ont., 4 ft., so as to make it 23 ft. above the tracks, to comply with the Railway Act. The proposal is meeting with strong objection by those who use the road, as the approach at present is one in twelve. The county engineer suggested that a subway should be constructed, and estimates the cost at about $6,500.

London Improvements.—Trains are now being run over the new tracks west of Cove bridge, through Hyde Park, London, Ont. At the latter point the grade is about 10 ft. lower than formerly. A good deal of other work is being gone on with, and all the difficulties between the company and the counsel are being got rid of. The last matter settled had reference to the improvements from Rideau St. west, and the street railway was involved as well as the city council.

St. Clair Tunnel Electrification.—At the annual meeting of the St. Clair Tunnel Co. at Detroit, Mich., Oct. 1, it was reported that the contract for the electrification of the tunnel provided for its completion by July 4, 1907.

Battle Creek Station.—The new station erected by the G.T.R. at Battle Creek, Mich., occupies the whole block fronting on East Hill St., between East Main and Beach Streets. It is built of Maine granite, with a roof of semi-glazed red Spanish tile. On the ground floor there are entrance lobby, general waiting room, smoking room, ladies' parlor, lunch room and baggage room, and on the second story are the offices. The waiting room is lofty, extending into the second story, the floor laid with mosaic tile, the walls wainscotted 9 ft. high with ivory enamelled tile, above which is a gilt frieze, and the ceiling is vaulted with groined arches. The platforms and walks are of concrete. About 200 ft. from the main building, but connected with it by a covered walk, is the building where the express matter is handled.

Railway Finance, Meetings, etc.

Canadian Northern Railway Co.—There has been deposited in the office of the Secretary of State duplicate original of mortgage dated July 12, 1906, between the Canadian Northern Ontario Ry., the National Trust Co., and the British Empire Trust Co., securing an issue of 30 years 3½% guaranteed debenture stock.

Canadian Northern Quebec Ry.—Application will be made next session of the Dominion Parliament for an act authorizing the company to enter into agreements for any of the purposes mentioned in the Railway Act of 1903, sec. 281, with the Canadian Northern Ontario Ry., and the Canadian Northern Ry., or either of them; and to lease to the last-named companies, or either of them, its lines or leased lines or any of them, and to give the said companies running powers thereover. The confirmation of an issue of 4% perpetual guaranteed debenture stock is also asked, together with a declaration of the powers of the company with respect to the consolidation of the whole or portions of the issues of securities of the company, its predecessors or successors, and to the retirement by exchange or otherwise of existing securities, and to the preservation of the rights and priorities of the securities retired in part.

An issue of £1,000,000 of 4% debenture stock of the C.N.Q. Ry., guaranteed as to principal and interest by the Canadian Northern Ry., has been offered on the London, Eng., market by Sperling & Co. The price of the issue is £98 per £100 bond, and is payable £5 on application, £10 on allotment, £15 on Nov. 6, £35 on Jan. 7, 1907, and £33 Mar. 6, 1907, per £100 bond. The holders of $1,514,500, part of $5,402,000 Great Northern Ry. of Canada 4% bonds, have agreed to exchange their bonds for stock of this issue at the rate of £97 of stock for every $500 bond. The holders of $1,440,000 (all) Chateauguay Northern 5% first mortgage bonds, and of $2,000,000 (all) Quebec, New Brunswick and Nova Scotia 4% first mortgage gold bonds have also agreed to exchange their bonds for stock at the rate of £205 5s. 6d. of stock for each $1,000 bond. By arrangement with those bondholders who have agreed to exchange their bonds as above mentioned, the stock required to carry out the exchanges is now offered for subscription.

Canadian Pacific Ry.—Application will be made next session of the Dominion Parliament for an act extending the company's power to issue bonds in respect of its Toronto-Sudbury branch, now under construction, to an amount not exceeding $35,000 a mile.

Grand Trunk Ry.—An action has been begun by a ratepayer of Montreal asking the courts to annul the resolution of the City Council fixing the assessment of the G.T.R. offices in the city. The resolution fixes the assessment at $100,000 for 30 years, and it is alleged that it was passed upon representations that the buildings to be erected were to be used for the construction of cars and locomotives on a large scale; and that the premises do not come within the exemptions under the terms of city by-law no. 236 which imposes a tax of 1% on city property.

Great Northern Ry. of Canada.—A conference was held at Quebec, Oct 1, between D. B. Hanna, President, and Z. A. Lash, K.C., and the Quebec Harbor Commissioners, for the purpose of adjusting differences between the two interests. The old Great Northern Ry. entered into certain contracts with the Quebec Harbor Commissioners respecting a grain elevator, the location of workshops, etc., and since the company has been taken over by Mackenzie, Mann & Co., and made a part of the Canadian Northern Quebec Ry., there has been some conflict between the Commissioners and the new owners of the railway as to the contracts. A basis of settlement was discussed, and at a subsequent meeting with the Quebec City Council, Oct. 9, a further step in the way of effecting a settlement of all the differences was taken.

Hampton and St. Martins Ry.—In connection with the proceedings for the foreclosure of the bonds of the railway, application has been made to have a claim of $2,400, made by the directors, allowed. It is alleged that they personally advanced wages to the employes, and rented freight and passenger cars for the use of the road, to the extent of the claim.

Michigan Central Rd.—Articles of incorporation have been filed at Lansing, Mich., of the St. Clair and Western Rd., This is the successor of the Michigan Midland Rd., from St. Clair to Lenon, Mich., and operated as part of the St. Clair Division, M.C.R.

New Brunswick Southern Ry.—According to a statement of the trustees of the estate of the late Russell Sage, there can be no sale of the N.B.S. Ry. until after the trustees have been confirmed in their positions by the courts. They further state that at present there is no truth in the report that the railway has been sold to the C.P.R., but it is not denied that a deal of the kind is contemplated. D. McNicoll, Vice-President C.P.R., stated in connection with the report that the New York press despatches were the first he had heard of the matter.

The New Brunswick Southern Ry. is a standard gauge railway, 82.5 miles long, extending from St. John to St. Stephen, N.B. Its equipment consists of three locomotives, six passenger cars, 37 freight cars, and a snow plough. It was incorporated in 1892 as the Shore Line Ry., and its name was changed in 1903, by the New Brunswick Legislature, to the N.B.S. Ry. It has a capital stock of $49,000 and a bonded debt of $800,000 of 4% gold bonds, which mature in 1953. For the year ended June 30, 1905, its gross earnings were $34,839.14, and the working expenses $45,800.94, showing a deficit of $10,961.80. Its trains ran 51,022 miles, and carried 12,157 passengers and 18,531 tons of freight.

New York Central and Hudson River Rd.—The directors have authorized the issue of $29,839,560 of stock to existing shareholders at par. This is equal to 20% of the present holdings of shareholders. A regular quarterly dividend of 1¼ % has been declared.

North Shore Power, Ry. and Navigation Co.—At the annual meeting at Quebec, Oct. 1, the retiring officers and directors were re-elected.

Pere Marquette Rd.—At the annual meeting of the Cincinnati, Hamilton and Dayton Rd., Oct. 9, L. Maxwell, counsel for J. P. Morgan, explained to the stockholders the steps which are being taken to set aside the lease of the Pere Marquette Rd., and the action of the receiver in separating the Chicago, Cincinnati and Louisville Rd. from any connection with

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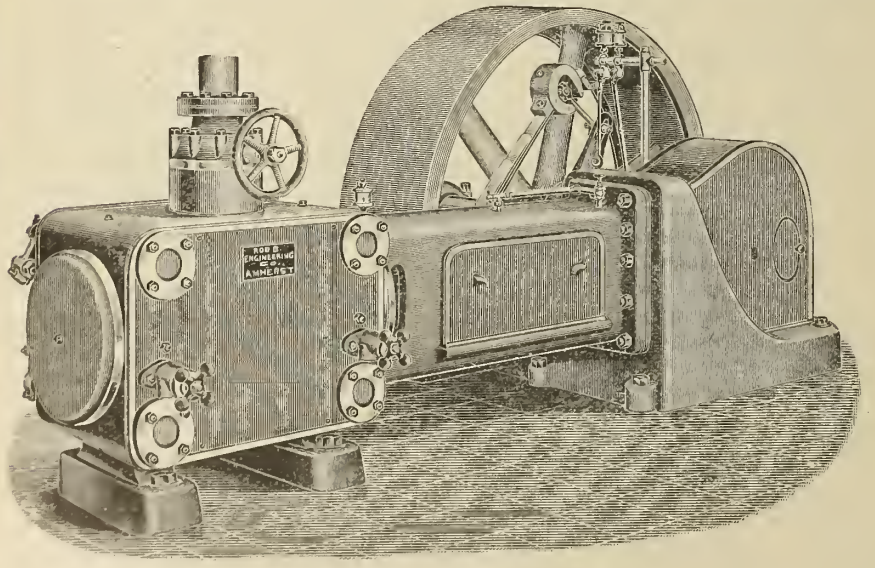

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the Cincinnati, Hamilton and Dayton Rd. He declared that an increase in the value of C. H. and D. stock might be expected when Mr. Morgan's plans were accomplished. The statement showed gross earnings from operation for the year ended June 30, $8,398,417, operating expenses $6,419,139, balance $1,979,278. After figuring charges, rentals, depreciation and improvements there is a deficit of $1,147,630. The stockholders voted 76,578 shares, and elected as directors for three years: R. R. Rhodes, Cleveland; S. Spencer, New York; W. L. Dechant, Middletown, O.

Qu'Appelle, Long Lake and Saskatchewan Ry. and Steamboat Co.—Application will be made next session of the Dominion Parliament for an act authorizing the company to lease its line to the Canadian Northern Ry., to give running powers over it, confirming an issue of 4% 30-year mortgage debenture stock, and declaring the company's powers with reference to its stock issues.

Qu'Appelle, Long Lake and Saskatchewan Rd. and Steamboat Co.—Reports from Regina, Sask., state that the C.P.R. asks a lease of the line until June, 1907, or that the Canadian Northern Ry. take it over at once. The heavy traffic is now over, and the C.P.R. is desirous of having an assurance of the good business in the spring if it operates the line during the winter.

Reid Newfoundland Co.—There has been filed at St. Johns, Nfld., a claim for $65,000 by the Reid Newfoundland Co. against the Government of the colony for rolling stock, equipment and accommodation provided for the Newfoundland railway system between 1901 and 1904 in excess of what the operating contract called for.

Temiscouata Ry.—At the annual meeting of shareholders at Quebec, Sept. 25, the report of the directors for the year ended June 30, was adopted. The report showed the company to be in a healthy and prosperous condition. A number of questions affecting the future of the line were discussed and were referred to the directors for consideration. The directors were re-elected, and at a subsequent meeting officers were re-elected. The officers and directors for the current year are: President, F. Grundy, Sherbrooke, Que.; Vice-President, J. H. Walsh, Sherbrooke, Que.; other directors: W. Cook, K.C.; A. H. Cook, K.C.; W. A. Campbell, A. Laurie, A. Steele; Secretary and General Manager, D. B. Lindsay, Riviere du Loup, Que.; Supcrintendent G. G. Grundy, Riviere du Loup.

Temiscouata Ry.—Traffic receipts for Sept., $14,000.57, against $14,127.96 for Sept., 1905.

Toronto, Hamilton and Buffalo Ry.—Earnings for Sept., $67,628.00 against $61,919.06 for Sept., 1905.

Wabash Rd.—J. J. Slocum has been elected a director to succeed the late Russell Sage.

Willard Kitchen Co. has been incorporated under the New Brunswick Companies' Act, with a capital of $50,000 and offices at Fredericton, N.B., to carry on a general contracting, construction, engineering and mechanical business within the province, and in connection therewith to acquire and carry on the business carried on by Willard Kitchen; to survey, lay out, construct and equip lines of railway in Canada; to purchase, sell and deal in railway and engineering supplies and equipment, including engines, cars and other rolling stock; to construct railway bridges, telegraph and telephone lines, and to purchase and sell stocks, shares and other securities of railway and other similar companies. The provisional directors are: W. Kitchen, Kingsclear, N.B.; H G. Kitchen, Montague Bridge, P E.I.; I. Burden, Montague Bridge, P.E.I.; J. H. Barry, and T. W. Kitchen, Fredericton, N.B.

Railway Commissioners' Freight Orders.

The Board of Railway Commissioners has issued the following:

FREIGHT CLASSIFICATION SUPPLEMENT.

1861. Meeting at Ottawa, Oct. 13. In the matter of the application of the Canadian Freight Association, under the Railway Act, 1903, sec. 255, for approval of a proposed supplement (no. 7) to Canadian Freight Classification no. 12. The commodities which have been moved from a lower to a higher class were published in the Canada Gazette April 28 and May 5. Upon the report of the Chief Traffic Officer of the board it is ordered that the changes and additions embodied in the said proposed supplement be legalized and sanctioned until such time, or times, as the board shall revise, alter, or amend the same, subject to the following exceptions, namely: (a) The proposed change with respect to mixed carloads of agricultural implements and churns, which is held over for further consideration; (b) the limitation of the carrier's liability with respect to hides, skins, pelts, furs, robes, and marble basins, which is held over pending the submission of the new Canadian Freight Classification no. 13 for the approval of the Board.

CARS FOR B.C. LUMBER SHIPMENTS.

1862. Meeting at Ottawa, Oct. 13 In the matter of the application of the Kootenay Shingle Co. of Salmo, B.C., and the Porto Rico Lumber Co. of Ymir, B.C., that the Nelson & Fort Sheppard Ry. Co. and the C.P.R. Co. do not furnish to them cars as required for the carriage of the products of their mills from points mentioned to points in eastern British Columbia, Alberta, Saskatchewan, and Manitoba, via Nelson and the C.P.R. and that the Nelson & Fort Sheppard Ry. Co. furnishes cars for local traffic upon its own line and for traffic interchanged between its lines and lines controlled by the Great Northern Ry. Co., thereby unjustly discriminating against the complainants in the allotment and distribution of cars. Upon hearing the applicant companies and the C.P.R. Co. at Nelson, B.C., and upon reading the answer of the Nelson & Fort Sheppard Ry. Co. to the complaints, the Board orders that the Nelson & Fort Sheppard Ry. Co. forthwith, and hereafter until further order of the Board, furnish adequate and suitable accommodation and facilities for the receiving, carrying and delivering of the traffic of the applicant companies respectively from Salmo and Ymir, respectively, to the nearest junction point of the Nelson & Fort Sheppard Ry. Co. with the C.P.R., as from time to time required, and that the C.P.R. Co. forthwith, and hereafter until otherwise ordered by the Board, furnish adequate and suitable accommodation and facilities for receiving, carrying, and delivering the traffic aforesaid brought to the said point of junction by the Nelson & Fort Sheppard Ry., destined for points on the C.P.R., as from time to time required.

RATES ON BRITISH COLUMBIA LUMBER.

1863. Meeting at Ottawa, Oct. 13. In the matter of the application of the C.P.R. Co., under the Railway Act, 1903, sec. 25, for an order varying or amending the order dated Mar. 12, 1906, directing the applicant company and the Nelson & Fort Sheppard Ry. Co. to restore the joint freight tariff no. W-273, which went into force July 5, 1904, and was subsequently cancelled, and to charge only the tolls specified in the said tariff for the routes and traffic therein referred to, and that in the division of the joint rates between the companies, the Nelson & Fort Sheppard Ry. Co. be allowed to charge 4c. per 100 lbs. as its proportion, as formerly, so as to make the rates to points covered by tariff W-273 2c. higher than those shown in tariff C.R.C. W-348, or subsequent issues. Upon the report of the Chief Traffic Officer of the Board, the consent of the Nelson & Fort Sheppard Ry. Co. and the Porto Rico Lumber Co., Ltd., it is ordered that the order of the Board dated Mar. 12, 1906, be varied and amended as follows, viz.: That the joint freight rates to be charged by the said railway companies on lumber, lath, shingles, in straight or mixed carloads, from Ymir and Salmo, via Nelson, B.C., to all points included in the C P.R. Co's tariffs, on the same commodities from Nelson, be not higher than 2c. per 100 lbs. over and above the rates that are, or may be, charged by the C.P.R. Co. from Nelson, and that the minimum carload weights on which such joint rates may be charged on lumber, lath, and shingles do not exceed those shown in the said C.P.R. Co's tariffs from Nelson. That in the division of the joint rates between the said railway companies, the Nelson & Fort Sheppard Ry. Co. be allowed to charge 4c. per 100 lbs. as its proportion, as formerly. That the joint tariff be forthwith published and filed by the Nelson & Fort Sheppard Ry. Co., and shall then be substituted for the joint tariff required by the order of Mar. 12, 1906.

Canadian Northern Ry. Earnings, etc.

Gross earnings, working expenses, net profits, increases or decreases over 1905-06, from July 1, 1906:

	Earnings.	Expenses.	Net Earnings.	Increase or Decrease.
July..	$ 603,800	$ 397,900	$ 205,900	$ 63,400+
Aug..	594,900	402,800	192,100	80,400+
	$1,198,700	$ 800,700	$ 398,000	$143,800+

Approximate earnings for Sept., $624,400, against $378,500 for Sept., 1905.

C.P.R. Earnings, Expenses, etc.

Gross earnings, working expenses, net profits, increases or decreases over 1905-6, from July 1, 1906:—

	Earnings.	Expenses.	Net Profits.	Increase or Decrease.
J'ly	$5,967,967.82	$3,596,156.74	$2,371,811.08	$734,033.42+
Aug.	6,170,452.27	3,707,873.07	2,462,579.20	670,933.29+
	$12,138,420.09	$7,304,029.81	$4,834,390.28	$1,404,966.71+

Approximate earnings for Sept., $6,101,000 against $4,816,000 for Sept., 1905.

Grand Trunk Ry. Earnings, Expenses, etc.

The following figures give the earnings and expenses of the G.T.R., the Canada Atlantic Ry., the G.T. Western Ry., and the Detroit, Grand Haven and Milwaukee Ry., separately, for Aug.:

G.T.R.	Aug., 1906
Earnings	$ 2,957 000
Expenses	2,024,000
Net earnings	$ 933,000

CANADA ATLANTIC RY.

Earnings	$ 200,200
Expenses	153,600
Net earnings	$ 46,600

GRAND TRUNK WESTERN RY.

Earnings	$ 540,100
Expenses	440,500
Net earnings	$ 99,600

DETROIT, GRAND HAVEN & MILWAUKEE RY.

Earnings	$ 187,900
Expenses	115,100
Net earnings	$ 72,800

The first run of the new mail service between London, Eng., and China, by the C.P.R. route, landed the mails in Hong Kong in 29 days, 7 hours and 35 minutes, nearly five hours within the contract time, and the first homeward run from Hong Kong to London was also made well within the contract period, notwithstanding a nine hours' delay at Rimouski, Que., on account of the poor tender service provided there by the Dominion Government.

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403 CORDOVA STREET. - VANCOUVER, B.C.
REGINA, SASK. CALGARY, ALTA.
VICTORIA, B.C.

MAINLY ABOUT PEOPLE.

C. F. Sise, President Bell Telephone Co., has returned to Montreal after a trip to Great Britain.

R. J. S. Weatherston, Travelling Freight Agent, G.T.R., Ottawa, Ont., was married at Fergus, Ont., Oct. 17, to Miss M. K. Mennis.

E. A. Ball, of Stratford, Ont., has been elected Fourth Vice-Grand Master of the Brotherhood of Locomotive Firemen and Engineers.

P. Hamel has been sentenced to twelve months' imprisonment at Montreal for embezzling $8,000 from the Order of Railroad Telegraphers.

W. H. Coyne, Assistant Trainmaster, New York Central and Hudson River Ry., Newark, N.J., recently visited his former home in North Bay, Ont.

Capt. J. E. Mills, son of Jas. Mills, of the Railway Commission, was married at Quebec, Sept. 27, to Miss M. Meredith, daughter of E. G. Meredith, M.P.

C. E. E. Ussher, General Passenger Agent C.P.R., and Mrs. Ussher, returned to Montreal Sept. 28, after a trip to England on the Empress of Britain.

Miss G. E. Scanlan, daughter of M. Scanlan, of the Dominion Steamship Co.'s offices, Montreal, was married at Montreal, Sept. 26, to J. M. Collins of that city.

W. Mackenzie, President Canadian Northern Ry., sailed from Liverpool, Eng., Oct. 19, on the C.P.R. S.S. Empress of Ireland, and arrived in Toronto Oct. 27.

E. A. Doran, Travelling Passenger Agent, G.T.R., is recovering from an attack of typhoid fever, for which he was treated in Brockville General Hospital.

M. Hanley, of the Toronto, Hamilton and Buffalo Ry. freight offices, was presented with a silver tea service by the Hamilton staff on the occasion of his marriage.

Mrs. Thos. Tait, wife of the chairman of the Victorian State Railways, Australia, is spending the winter in Paris, France, accompanied by her daughter.

Jas. McKenna, Travelling Passenger Agent C.P.R., was presented with a gold watch by the railway officials of St. John, N.B., on leaving that city for Montreal.

W. B. Poland, who recently resigned as Chief Engineer and Manager, Alaska Central Rd., has been elected Vice-President and Chief Engineer of the Philippine Ry. Co.

H. W. Brodie, Assistant General Passenger Agent C.P.R., Winnipeg, was married there Oct. 10 to Miss F. S. Denison, daughter of the late W. G. Denison, railway contractor.

Miss F. Teall, daughter of J. H. Teall, formerly Manager of the Tillsonburg, Lake Erie and Pacific Ry., was married at Tillsonburg, Ont., to H. Edgecombe, Tilbury, Oct. 19

The citizens of Cornwall, Ont., gave a public dinner, Oct. 25, to H. J. Leitch, K.C., chairman of the Ontario Railway and Municipal Board, in connection with his removal to Toronto.

Mrs. James Webster, wife of the General Manager of the Caraquet and Gulf Shore Railway, who spent the summer at the seaside in New Brunswick, has returned to Toronto.

W. A. Evans was presented with a leather arm chair, and Mrs. Evans with a rattan chair, by the G.T.R. staff, on leaving Collingwood for Port Perry, Ont., also in the G.T.R. service.

F. Butler was presented with a piano by the senior clerks, and a silver service by the junior clerks in the Canadian Northern Ry. offices, Toronto, Oct. 1, on the occasion of his marriage.

I. G. Ogden, Third Vice-President C.P.R., is recovering from the effects of a broken ankle with which he was confined to his bed at the Royal Victoria Hospital, Montreal, for some weeks.

H. A. Morine, formerly General Freight and Passenger Agent Reid Newfoundland Co., St. Johns, Nfld., is now General Agent of the Port Hood Richmond Ry. Coal Co., Port Hood, N.S.

R. B. Capon, who has retired from the C.P.R. freight department, Montreal, to engage in commercial business in Boston, Mass., was presented with an onyx clock, by the staff Oct. 1.

J. J. Brignall, chief clerk in the C.P.R. District Passenger Agent's office, Toronto, was presented with a silver tea service by representatives of Toronto newspapers on the occasion of his recent marriage.

W. R. Davis, who has been appointed Police Magistrate without salary for the town of Mitchell, Ont., and the townships of Logan, Hibbert and Fullerton, Perth county, is C.P.R. town ticket agent at Mitchell.

G. Hannah, Passenger Manager Allan Line, Montreal, was confined to his house for some days early in Oct., on account of injuries received from a fall in Common St., in that city, while running to catch a car.

A. McMullen was presented with a suit case and set of pipes by his Stratford, Ont., friends on leaving the G.T.R. Master Mechanic's office there, to take service with the Temiskaming and Northern Ontario Ry., at North Bay.

S. J. Kearns, formerly of London, Ont., and brother of J. W. Kearns, travelling passenger agent in Canada for the Pere Marquette Rd., has been appointed Trainmaster New York Central and Hudson River Rd. at Rochester, N.Y.

A. R. McDonald, stock broker, Quebec, who died there Oct. 1, was formerly Superintendent of the Levis District I.C.R. at Riviere du Loup. His daughter married R. Forget, M.P., President of the Richelieu and Ontario Navigation Co.

G. C. Wells, Assistant General Passenger Agent, C.P.R. Eastern Lines, was presented with a case of cutlery and silverware by the officials of the passenger department at Montreal, upon the occasion of his marriage, Oct. 24, to Miss J. W. Sharp.

T. F. Lowry, who has been appointed Superintendent of the Great Northern Ry., U.S., at Crookston, Minn., is a son of T. Lowry, conductor, Michigan Central Rd., St. Thomas, Ont., and began railway service in the M.C.R. offices in that city as a messenger.

Mrs. Leitch, wife of the Chairman of the Ontario Railway and Municipal Board, was presented with an address and a pearl sunburst on her retirement from the position of Secretary of the Cornwall Circle of King's Daughters and the Cornwall Auxiliary of the W.F.M.S. on leaving Cornwall, Ont., for Toronto.

F. E. Dewey, who has been appointed Assistant to the President Wisconsin Central Rd, Milwaukee, Wis., began his railway career Feb. 14, 1875, as messenger in the auditor's office, Central Vermont Rd., and subsequently served with the Quebec, Ottawa and New England Air Line, the Ogdensburg and Lake Champlain Ry., and the Canada Atlantic Ry., among others, prior to 1891.

C. F. Burns, who has been appointed acting Auditor of Disbursements, Intercolonial Ry., at Moncton, N.B., was born at Clements Port, Annapolis county, N.S., Sept. 10, 1854. He entered railway service as travelling auditor I.C.R., Feb., 1901, and was appointed chief clerk to the Chief Accountant and Treasurer in 1904, which position he retained up to the date of his present appointment.

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C. Montgomery, who has been appointed Assistant Master Mechanic Pere Marquette Rd., St. Thomas, Ont., was born near London, Ont., Aug. 29, 1860, entered railway service with the Michigan Central Rd. at St. Thomas, and has since acted at locomotive engineer, Chicago, St. Paul, Minneapolis and Omaha Rd.; travelling engineer on the Missouri Pacific Rd.; and road foreman of engines Pere Marquette Rd., Grand Rapids, Mich.

C. B. Smith, Chairman of the Temiskaming and Northern Ontario Ry. Commission, has resigned that position. He will however, retain his position as consulting engineer to the commission. He has been appointed engineer to the Ontario Hydro-Electric Power Commission, and consulting engineer to the Winnipeg City Council in respect to the construction of an electric power development plant at Point du Bois on the Winnipeg River.

E. W. Taylor, who has been appointed General Freight Agent, Reid Newfoundland Co., was born at Carbonear, Nfld., Sept. 8, 1870, and entered the service of the Anglo-American Telegraph Co. there. He came to Canada in 1890, and entered the service of the C.P.R. as telegraph operator at Winnipeg, serving at various points between Fort William and that city. Returning to Newfoundland in 1894, he entered the service of the Reid Newfoundland Co. on survey work, and subsequently at various stations on the line, and up to Sept. 11, the date of his present appointment, was agent at North Sydney, N.S.

Homer Taylor, in the railway supply business at Montreal, was accidentally killed on the C.P R. near Alexandria, Ont., while returning from Ottawa Oct. 21. He was rejoining the train after lunch, and swung on to the steps of the last car as it was moving out; the platform happened to be down and, consequently, he could not open the vestibule door. It was some time before his position attracted attention on the car, and before assistance could be given he became exhausted and fell off, the speed of the train being about 40 miles an hour at the time. The train was stopped and backed, but it was found that he was dead, the skull being fractured, in addition to other serious injuries.

A. C. Laing, who has been appointed passenger agent New York Central and Hudson River Rd. at Buffalo, N.Y., entered railway service in 1889 as a messenger on the G.T.R. at Hamilton, and was stenographer to Jos. Hobson, Chief Engineer, when he left in 1891 to go to Buffalo to be stenographer to E. J. Weeks, then General Agent of N.Y.C. Rd. and West Shore Rd. When Mr. Weeks was appointed General Passenger Agent of the Philadelphia and Reading Rd. in 1897, Mr. Laing remained with H. Parry, who was then promoted to General Agent. In 1899, Mr. Laing was promoted to be chief clerk, and in 1904 was promoted to District Passenger Agent of West Shore Rd., holding that position until his present promotion.

F. F. Busteed, whose portrait appears on the first page of this issue, was born at Battery Point, Que., Oct. 10, 1858, and entered railway service as chainman, 1879, since which his record has been: 1881 to 1883, transitman; 1883 to 1887, assistant engineer in charge of construction; 1887 to 1889, in charge of location and division engineer of construction, this service being with the C.P.R.; 1890, locating and division engineer Alberta Ry. and Coal Co.'s extension from Lethbridge, Alta., to the junction at the International boundary with the Great Falls and Canada Ry.; 1890 to 1892, locating engineer and city engineer of Bristol, Va.; 1892 to July, 1904, successively as roadmaster, Assistant Engineer, Resident Engineer, Engineer of Maintenance of Way and Structures, and Divisional Engineer at various points on the C.P.R.; and Superintendent C.P.R., Nelson, B.C.; July, 1904, to date, Assistant Chief Engineer, C.P.R., at Winnipeg.

W. T. Jennings, M. Inst. C.E., of Toronto, died at Lansing, Mich., Oct. 24. He left Toronto Oct. 16 for Essex, Ont., to inspect the Windsor, Essex and Lake Shore Rapid Ry., and afterwards proceeded to Michigan to inspect some electric lines there for Toronto capitalists. Reaching Kalamazoo early Oct. 18, he went by motor car to Jackson, where he complained of feeling ill, and was taken by J. N. Elliot, Manager of the Michigan United Railways, to the latter's home at Lansing. On Oct. 20 Mr. Jennings was so much worse that his only son, Gordon T., was telegraphed for. Paralysis ensued and he died Oct. 24. He was born in Toronto May 19, 1846. After some service with the Ontario Public Works Department, he entered railway service in 1870 with the G.T.R., and between 1875 and 1885 was engaged upon survey and construction work upon the C.P.R. under Sir Sandford Fleming, and C. Schrieber, and afterwards as superintending engineer for a railway contracting company, and as consulting engineer for the C.P.R. Until 1890 he was engaged in railway service, acting for the C.P.R. at London and Toronto, and in 1890 and 1891 was City Engineer of Toronto. Since 1891 he has practised as consulting engineer at Toronto, latterly being associated with the Toronto and Niagara Power Co. and its allied electric railway interests.

The C.P.R. has increased the pay of its boilermakers on the line between Port Arthur, Ont., and Laggan, B.C., from 36½ to 40 cents an hour.

The Toronto Board of Control has under consideration a suggestion from the Mayor that the city should appoint a consulting engineer to advise upon railway matters generally.

A Chicago, Ill., press despatch says: The Central Passenger Association decided to put in effect Nov. 1, a 2½c. rate in all its territory east of Illinois in which the State Legislatures have not already made a maximum rate of 2c. This involves a lowering of all the interstate passenger rates north of the Ohio River and west of Syracuse.

Western Estates, Limited, has been incorporated under the Dominion Companies' Act, with a capital of $140,000 and offices in Toronto, to deal in land. The provisional directors are F. H. Richardson, W. H. Moore, H. C. Moore, C. Wilson, and J. McArthur, Toronto. With the exception of the first-named they are in the employ of Mackenzie, Mann & Co., or allied interests.

A new freight service was inaugurated Oct. 25, between Spokane, Wash., and St. Paul and Minneapolis, Minn., through Canada. The route is via the Spokane International Ry. to Yahk, on the B.C. International boundary; thence over the C.P.R. Crow's Nest Pass line and the C.P.R. main line and branch to Portal, Sask.; thence over the Minneapolis, St. Paul and Sault Ste. Marie Ry. It is expected to operate a passenger service over the same route in the spring of 1907.

The opening of the G.T.R. was celebrated at Montreal in 1856. Following is the programme reproduced from the Toronto Globe of that year: November 1, 9 a.m.—General procession through the city. 2 p.m.—Banquet in the large building belonging to the company at Point St. Charles. 8 p.m.—Torchlight procession and fireworks. November 2, 9 a.m.—Steamboat excursion to Victoria Bridge; inauguration of the new city waterworks. 2 p.m.—Grand military review. In the evening.—Grand illumination and ball at the Bonsecours Hall.

TRANSPORTATION APPOINTMENTS.

Canadian Northern Ry.—H. M. Harding has been appointed Local Secretary in London, Eng., vice H. Malcolm Hubbard, resigned.

Canadian Pacific Ry.—R. Mackenzie has been appointed Divisional Car Foreman. Headquarters, McAdam, N.B.

L. Mulkern has been appointed Travelling Freight Agent, Toronto, succeeding W. B. Bamford, appointed District Freight Agent at London, Ont.

J. C. Darnborough, formerly station master, Toronto Union Station, has been appointed car tracer, C.P.R. Eastern Lines.

A. McKenzie, heretofore extra gang foreman, Toronto Terminals, has been appointed Roadmaster, Toronto and Hamilton section, succeeding F. J. Holloway.

W. B. Bamford, heretofore Travelling Freight Agent, has been appointed District Freight Agent, Ontario Division, with headquarters at London. He will have jurisdiction over the line Galt and west to Windsor, including Ingersoll and Port Burwell branches, and will report to the General Freight Agent at Toronto.

J. Halstead has been appointed Assistant General Freight Agent, Western Division, succeeding H. H. Abbott, resigned. Office, Calgary, Alta.

The circular announcing the appointment of T. Crump, at Field, B.C., in succession to C. Carey, says he has been appointed Trainmaster, and not acting Trainmaster, as we were previously advised. His jurisdiction is from Field to Laggan, inclusive.

W. Bird has been appointed locomotive foreman at Revelstoke, B.C., vice R. Anthony, transferred to Cranbrook, B.C.

J. H. Scott, heretofore train dispatcher, District 1, Western Division, Calgary, Alta, has been appointed Chief Train Dispatcher, District 2, Cranbrook, B.C., succeeding A. Hatton, transferred.

R. D. Smith has been appointed District Master Mechanic, district 2, Western Division, with office at Cranbrook, B.C. The office of road foreman of locomotives on district 2 has been abolished.

The changes at Vancouver, B.C., in connection with the handling of the freight business, include the separation of the local and the export business. The former will be handled at Vancouver, and the latter at Vancouver wharf. J. McCreery, heretofore agent at the wharf, has been appointed local agent, and R. Armstrong, heretofore yard agent, wharf agent. The agents have each appointed their own staffs.

W. G. Gustetter, heretofore in the Big Four Route's city passenger office at Cincinnati, Ohio, has been appointed City Passenger Agent, C.P.R., at Cincinnati, where the latter company has opened a ticket office in the new Sinnot Hotel, Fourth St.

C. G. Hirt, heretofore contracting freight agent, St. Louis, Mo., has been appointed Travelling Freight Agent there, succeeding G. F. Diekroeger, resigned, and is succeeded as contracting freight agent by W. P. Brown.

A. J. Blaisdell, formerly city ticket agent, Missouri Pacific Rd., St. Louis, Mo., has been appointed City Passenger Agent, C.P.R., at St. Louis, where the latter company has opened an office at 725 Olive St.

O. H. Becker, heretofore contracting freight agent at Seattle, Wash., has been appointed contracting freight agent at Tacoma, Wash., vice J. Halstead, promoted.

F. W. Sterling, heretofore travelling freight agent, has been appointed contracting freight agent at Seattle, Wash., vice O. H. Becker.

J. O'Grady, heretofore ticket clerk, has been appointed passenger agent at Tacoma, Wash.

W. E. Woodhouse, heretofore Division Master Mechanic at Moose Jaw, Sask., has

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42 York Street, TORONTO, ONT.

been appointed Master Mechanic Western Division, vice J. Cardell assigned to other duties. Office, Calgary, Alberta.

R. Pyne, heretofore locomotive foreman at Brandon, Man., has been appointed Division Master Mechanic at Moose Jaw, Sask., vice W. E. Woodhouse promoted.

Central Vermont Ry.—The office of Assistant Superintendent has been abolished and E. D. Nash, who has heretofore occupied that position, has been appointed Superintendent. Office, New London, Conn.

Chicago, Rock Island and Pacific Ry.—H. M. Brown, heretofore city passenger and ticket agent, Denver, Colo., has been appointed District Passenger Agent at Buffalo, N.Y., succeeding W. F. Crawford, resigned.

Grand Trunk Ry.—The following agents have been appointed: Huntingdon, Que., H. P. Boulger; St. Michel, Que., J. C. Bellefleur; Vaudreuil, Que., P. Hughes; Inglewood Jct., Ont., W. Blackwell; Caledon East, Ont., R. G. Cowan; Alliston, Ont., T. Coulter; St. Paul's, Ont., G. G. Skelton; Lawrence, Ont., J. A. Pollock; Ridgeway, Ont., J. A. Burke; Swanton, Vt., F. J. McEnany; Galetta, Ont., R. A. McQuade; Glasgow, Ont., C. A. Bell; Admaston, Ont., Miss E. L. McQuade, caretaker; Caldwell, Ont., J. O'Leary, caretaker.

C. S. Wainwright has been appointed travelling freight agent at Los Angeles, Cal.

Great Northern Ry. of Canada.—R. J. Munroe, heretofore road foreman, Montford Division, has been appointed roadmaster, vice H. B. Cassidy, resigned to enter the G.T.R service. Office, Jolictte, Que.

Intercolonial Ry.—C. F. Burns, heretofore chief clerk in the office of the Chief Accountant and Treasurer, has been appointed Acting Auditor of Disbursements, and not Auditor of Disbursements, as previously reported Office, Moncton, N.B.

Kingston and Pembroke Ry.—F. Conway, heretofore General Passenger and Ticket Agent, has been appointed Acting General Superintendent, F. A. Folger, jr., General Superintendent, having resigned. Office, Kingston, Ont.

Lake Shore and Michigan Southern Rd.—J. J. Bernet, heretofore Assistant General Superintendent, has been appointed General Superintendent, succeeding H. A. Worcester, resigned to enter the service of the Cleveland, Cincinnati, Chicago and St. Louis Rd.

S. W. Brown, heretofore Superintendent Eastern Division, Buffalo, N.Y., has been appointed Assistant General Superintendent, succeeding J. J. Bernet.

H. M. Tomkins, heretofore Assistant Superintendent Eastern Division, has been appointed Superintendent, succeeding S. W. Brown.

E. B. Cook, heretofore Assistant Superintendent Toledo Division, at Collinwood, Ohio, has been transferred to the Eastern Division at Buffalo to succeed H. M. Tomkins.

Michigan Central Rd.—G. H. Harris, heretofore Division Engineer at Niles, Mich., has been appointed Assistant Engineer, Detroit, Mich. He will assist the Assistant Chief Engineer.

New York Central and Hudson River Rd.—W. L. Kingman, heretofore General Freight Agent, has been appointed Industrial Agent, succeeding S. Goodman, deceased.

H. D. Carter, heretofore General Freight Agent, West Shore Rd., has been appointed General Freight Agent, N.Y.C. and H.R.Rd., succeeding W. L. Kingman.

W. S. Kallman, heretofore first Assistant General Freight Agent N.Y.C. and H.R. Rd., has been appointed General Freight Agent West Shore Rd., succeeding H. D. Carter.

E. H. Croly, heretofore Division Freight Agent of the Western Division at Buffalo, N.Y., has been appointed Division Freight Agent Western District, Buffalo, N.Y.

A. C. Laing, heretofore District Passenger Agent, West Shore Rd., Buffalo, N.Y., has been appointed Passenger Agent, N.Y.C. and H. R. Rd. there, his former office having been abolished. Office, 377 Main St., Buffalo, N.Y.

Northern Pacific Rd.—Referring to the announcement in our last issue of the transfer of W. E. Belcher, General Agent, Freight Department, from Toronto to Detroit, Mich., his headquarters temporarily are in the passenger department's office, 221 Hammond Building, and not in the Majestic Building, as previously stated. His territory has not been definitely settled. At present he has charge of the city of Detroit and his old territory in Ontario.

Pullman Co.—G. A. Temple, Assistant District Superintendent, Montreal, has been appointed agent at Toronto, vice M. C. Dawson, resigned.

W. H. Galarneau has been appointed Assistant District Superintendent at Montreal.

Reid Newfoundland Co.—E. W. Taylor has been appointed General Freight Agent of the R. N. Co.'s railway and steamship system, succeeding D. Sutherland, resigned. Office, St. Johns, Nfld.

Temiskaming and Northern Ontario Ry.—J. L. Englehart, of Petrolea, Ont., a member of the Commission, has been appointed Chairman, vice C. B. Smith, who has resigned, but who retains the position of consulting engineer. This leaves one vacancy on the Commission.

Wabash Rd.—E. Gould, heretofore Superintendent of the Missouri Pacific Rd., is reported to have been appointed General Superintendent Wabash Rd., succeeding S. E. Cotter, appointed General Superintendent Chicago, Milwaukee and St. Paul Rd.

J. J. Mossman, formerly Division Freight Agent at Detroit, Mich., has been appointed General Agent at Buffalo, N.Y., in charge of operating, freight and passenger departments, vice R. N. Collyer, appointed Assistant General Freight Agent at St. Louis, Mo.

G. M. Hart has been appointed Acting Superintendent Commissary Department, vice F. C. Roberts, resigned. J. B. Elwood has been appointed Inspector Commissary Department, reporting to Mr. Hart.

West Shore Rd.—The passenger and ticket office at 41 Exchange Street, Buffalo, N.Y., has been removed to the New York Central ticket office, 377 Main St. P. B. Maxwell, heretofore City Passenger Agent at 41 Exchange St., has been appointed Passenger Agent, with office at 377 Main St.

Dominion Railway Subsidies.

Contracts have been signed with the following companies for the construction of altogether 297 miles of railway, under the act granting aid to certain railways:

HALIFAX AND SOUTH-WESTERN RY.—Oct. 8. From or near Halifax to or near Barrington Passage, N.S., in lieu of the 68, 77 and 35 miles granted by chap. 57 of 1903, 185 miles. This supersedes the subsidy agreement of Nov. 3, 1903.

KLONDIKE MINES RY.—Oct. 10. From Dawson to Stewart River, Yukon, passing at or near Grand Forks, in lieu of the subsidy granted by chap. 57 of 1903, 84 miles. This supersedes the subsidy agreement of May 25, 1906.

NAPIERVILLE JUNCTION RY.—Oct. 10. From St. Constant to or near the International boundary line, on the Delaware and Hudson Rd. (G.T.R.), in lieu of the 19 and 12 miles, granted by chap. 7 of 1899; 28 miles. This supersedes the subsidy agreement of Oct. 22, 1896, as to the 12 miles.

The Robb Engineering Co., Amherst, N.S., has received an order for three 125 h.p. engines for the Hotel Vancouver, Vancouver, B.C.

Canadian Northern Railway Report.

Following is the 4th annual report submitted over President W. Mackenzie's signature at the annual meeting in Toronto, Oct. 23.

The results of operations for the year ended June 30, are as follows:

GROSS EARNINGS.	
From passenger traffic	$1,062,639.20
From freight traffic	4,335,933.10
From express, mail, telegraph, dining and sleeping cars, including profits from elevators and other subsidiary companies	505,183.31
	$5,903,755.61
WORKING EXPENSES	3,674,732.85
Net earnings	$2,229,022.76
Fixed charges	1,509,448.33
Surplus for year	$ 719,574.43

The working expenses were 66.49% of gross earnings of the railway proper, and 62.24% of gross earnings from all sources, compared with 67.05% and 63.12% respectively last year. The increase in passenger traffic compared with last year was $398,703.35 or 60%, and whilst the addition in the mileage operated has in part contributed to this result, there has also been a satisfactory increase in passenger revenue from your lines generally. The increase in gross earnings from freight traffic was $1,274,402.33 or 42.62%; tonnage moved being 1,727,002 tons compared with 1,368,896 for the previous year. Of the increase, grain and flour contributed 179,596 tons; logs and lumber, 45,031; and general merchandise 99,050.

During the past fiscal year the mileage under operation was increased very largely. The completion of the line to Prince Albert and the main line to Edmonton during the year marked an important stage in the history of your railway. The line to Prince Albert provides, in addition to opening up a large area of arable land to settlers, which has to some extent been already brought under cultivation, an outlet for the production of the lumber mills operating at different points on the line, and creates a shorter route to Winnipeg and the east by about 70 miles. Your directors have confidence that this line will continue to be an exceedingly profitable part of your railway. The formal opening of the main line to Edmonton was received by the citizens of that city and district with every expression of good-will, and since the inauguration of a regular train service the company has received a satisfactory proportion of the business destined to and from the districts.

A very large increase in traffic has been reaped throughout the year from the movement of grain and cattle, and from the farming and immigration business generally; but by far the most noteworthy, and an immensely satisfactory development to be recorded, is that of the coal, iron ore, and other mineral business all along the line, the result of which will only be actually shown in the traffics during the current year. It is an especial subject of congratulation, as it will enable your company in future to face years of poor crops, whenever they come, with equanimity. The movement of desirable settlers to all parts of your railway, and especially to the Saskatchewan Valley and Carrot River districts, during the past fiscal year, continues satisfactory from every standpoint. The grain crop was considerably better than the previous year, the lumbering industry also continues prosperous.

In the course of a few months your railway expects to engage in the movement of iron ore from the Atikokan range to Port Arthur, where a plant to manufacture iron is now under construction, and will be ready for operation shortly. The owners of the

THE BAKER HOT WATER CAR HEATERS

RIVETED STEEL SHELL HEATER

Attention is especially called to our FIRE PROOF HEATERS, with jointless steel casings, made of ¼ in. steel; Fire Proof and Break Proof. Single and Double Coils.

RIVETED STEEL HEATER, with Double Coils. Meets the demand for a smaller and cheaper Heater than our Fire Proofs.

PERFECTED HEATERS, Single and Double Coils.

The "MIGHTY MIDGET" HEATER, 19 inches in diameter. This Heater is especially adapted to ELECTRIC CARS.

STEAM ATTACHMENTS, to circulate the water of the Baker Heater by steam from the locomotive; or will circulate hot water independently of any Heater.

PIPE AND PIPE FITTINGS for Baker Heater work.

Avoid Infringements by ordering direct from the makers.

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HEATING AND SUPPLY COMPANY

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DOUBLE COIL JOINTLESS FIREPROOF STEEL HEATER

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Manufacturers of Car Wheels and Railway Castings of every kind.

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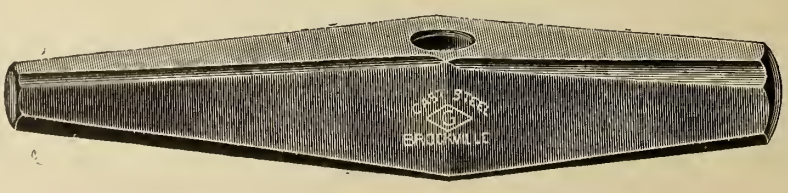

OUR TRADE MARK

A GUARANTEE OF EXCELLENCE

Purchasing Agents are invited to send for our Catalogues and Discount Sheets, which will be furnished promptly.

ore property have every expectation also of marketing a large tonnage in the United States, and preparations to that end are being made by them.

In order to develop and protect the territory served by your main lines further branch lines are under contract for early construction.

During the year considerable expenditures were incurred in improving the roadbed, enlarging and building new stations, extending industrial tracks and sidings to meet the growing demands of traffic. The work has been to a great extent delayed owing to the scarcity of labor, and there is no immediate prospect of the situation improving in that respect.

Four per cent. perpetual consolidated debenture stock, to the amount of £1,240,000, was sold during the year and the proceeds applied for the general purposes of the company.

Your directors, realizing the importance of securing entrances into the cities of Ottawa, Montreal and Quebec, have acquired control of the Great Northern Ry. of Canada, the Chateauguay and Northern Ry., and the Quebec, New Brunswick and Nova Scotia Ry., by whose lines the necessary entrances have been secured. These three companies have since been amalgamated under the name of the Canadian Northern Quebec Ry. Co., and arrangements are now being made for the permanent working of the amalgamated railway as part of the Canadian Northern system.

Three months have elapsed since the close of the fiscal year, viz., July, Aug., and Sept., and the traffic returns show that the gross earnings exceeded the same months last year by $691,600. These figures are fairly representative of the prevailing prosperous conditions; and with an increased movement of immigrants, a grain crop in excess of 1905, your company is assured of a large addition to its business for another year. Provision has been made to meet this increased traffic by the purchase of rolling stock of all kinds.

Following are extracts from the accounts as submitted by Third Vice-President D. B. Hanna:

GENERAL BALANCE SHEET.

Cost of railway and equipment	$69,858,264.85

GENERAL ASSETS.

Minnesota & Ontario Bridge Co.		
4½% 1st mortgage debenture bonds	$ 180,000.00	
Capital stock	100,000.00	
Minnesota & Manitoba R.R.		
5% general mortgage bonds	250,000.00	
Capital stock	400,000.00	
Lake Superior Terminals Co., Ltd.		
5% mortgage gold bonds	1,000,000.00	
Capital stock	500,000.00	
Canadian Northern Telegraph Co.		
5% general mortgage bonds	300,000.00	
Capital stock	500,000.00	
Winnipeg Land Co., Ltd.		
5% first mortgage gold bonds	300,000.00	
Capital stock	100,000.00	
	$3,630,000.00	
Taken to account at actual cost to Co.		1,946,666.66

OPERATING ASSETS.

Material and supplies on hand	$ 411,914.78	
Due from agents and companies, traffic balances, etc.	1,390,651.31	
		1,802,566.09
Cash on hand		689,514.46
		$74,297,012.06

Capital stock	$30,750,000.00
4% perpetual consolidated debenture stock	10,901,333.32
Bonds	24,585,136.70
Car trust obligations	4,180,915.61

CURRENT LIABILITIES.

Unpaid pay rolls	$ 333,276.17	
Unpaid audited vouchers	627,497.76	
Due to other companies	1,143,406.78	
Accrued interest on bonds, etc.	147,335.60	
		2,251,516.31
Surplus		1,628,110.12
		$74,297,012.06

FIXED CHARGES FOR YEAR ENDED JUNE 30.

Bonds guaranteed as to principal and interest by Manitoba Government:

AMOUNT	DATE OF ISSUE	ANNUAL CHARGE
£1,804,500	June 30, 1904	$ 360,128.19
£1,180,600	Sept. 30, 1901	230,929.40

Guaranteed as to principal and interest by Dominion Government:

£1,923,287	July 29, 1903	$ 167,836.40

Perpetual consolidated debenture stock:

£ 400,000	June 30, 1903	
£ 600,000	Feb. 18, 1905	194,666.66
£1,240,000	Nov. 18, 1905	120,693.32
		$ 315,359.98

LEASED LINES.

Northern Pacific and Manitoba Ry.	$ 210,000.00
Minnesota and Manitoba Rd	13,960.00
Interest on equipment leases	211,234.36
	$1,509,448.33

DESCRIPTION OF FREIGHT CARRIED YEARS ENDED JUNE 30.

		1906	1905
Flour	sacks, 100 lbs.	483,819	414,824
Grain	bushels	16,192,502	9,681,829
Live stock	head	41,588	20,299
Logs and lumb'r	feet	171,636,000	141,614,000
Firewood	cords	175,675	176,365
Fish	tons	3,175	5,770
Immigrants' effects	cars	2,614	1,558
Build'g Mater'l—(lime, stone, brick, sand, etc.)	cars	8,955	5,968
Miscellaneous	tons	559,022	459,972

GROSS EARNINGS.

	1906	Per Cent.
Passenger	$1,062,639.20	18.00
Freight	4,335,933.10	73.44
Mails	23,171.82	00.40
Express	53,941.40	00.91
Miscellaneous	428,070.09	07.25
Total	$5,903,755.61	100.

OPERATING EXPENSES.

	1906	Per Cent.
Maintenance of way and structures	$ 807,692.24	21.98
Maintenance of equipment	585,602.08	15.93
Conducting transportation	2,072,056.62	56.39
General expenses	209,381.91	5.70
Total	$3,674,732.85	100.

PASSENGER TRAFFIC.

	1906	1905
Passengers carried	564,341	486,591
Passengers carried one mile	47,182,065	28,883,378
Earnings per passenger per mile	02.522	02.591
Earning per traffic train mile	$ 1.13.002	c.92.610
Passenger train earnings.	1,190,174.97	$ 748,564.40

FREIGHT TRAFFIC.

	1906	1905
Tons carried	1,727,002	1,368,896
Tons carried one mile	535,298,197	385,834,234
Earnings per ton per mile	c.00.810	c.00.793
Earnings per traffic train mile	$ 2.22.141	$ 2.04.680
Total freight train earn'gs	$4,335,933.10	$3,061,530.77
Gross earnings per mile	$ 2,860.34	$ 2,641.37
Operating expenses per mile	$ 1,780.39	$ 1,667.55
Net earnings per mile	$ 1,079.95	$ 973.82
Amount required per mile to pay fixed charges, including leased lines	$ 786.05	$ 711.71
Mileage passenger trains	1,053,247	808,282
Mileage freight trains	1,951,883	1,495,856

EXPENSES PER TRAFFIC TRAIN MILE.

	1906	1905
Maintenance of way and structures	c.26.88	c.24.18
Maintenance equipment	c.19.48	c.17.82
Conducting transportat'n	c.68.95	c.65.76
General expenses	c.06.97	c.07.01
Total	$1.22.28	$1.14.77

ROLLING STOCK YEARS ENDED JUNE 30.

	1906	1905
Locomotives	141	106
Sleeping and dining cars	18	7
Passenger coaches	77	47
Baggage, mail and express cars	35	15
Business cars	5	5
Freight, refrigerator and stock cars	5,437	4,154
Conductors' vans	69	58
Boarding, tool, auxiliary cars and steam shovels	83	70

The total number of miles of railway from Port Arthur, Ont., west, owned and operated, including leased lines, on June 30, was 2,482.2. The average mileage for the fiscal year was 2,064. The mileage is located as follows: Ontario, 353.7; Manitoba, 1,312.4; Saskatchewan, 602.6; Alberta, 169.8; Minnesota, 43.7.

Directors were re-elected for the current year as follows: W. Mackenzie, President; D. D. Mann, Vice-President; Z. A. Lash, F. Nicholls, all of Toronto; R. M. Home-Payne, London, Eng.

General Passenger Agents' Meeting.

The American Association of General Passenger and Ticket Agents held its 51st annual convention at Atlantic City, N.J., Oct. 16.

A resolution was adopted, pledging all lines in the Association to bring about as speedily as possible a requirement that passengers pay in advance for sleeping and parlor car accommodation, except when applications are made from outside places where this regulation could not be conveniently enforced. The practice of making reservations in advance without requiring payment has resulted in transportation companies being called upon to move a very large number of additional cars, owing to failure of passengers to take the trouble to claim or cancel advance reservations before the departure of trains.

Reports from the two committees on a "safety paper" were presented, and it was decided to appoint a new committee consisting of the executive committee of the Association, the protective bureau, and the President and Secretary of the Association, who are to submit their report by Jan. 1 next.

On the subject of tariffs a recommendation was made that the different passenger associations be requested to direct their compilers of rate sheets as follows: 1. To make all interline rate sheets and tariffs and supplements thereto take effect, as far as possible, only on the first day of the calendar month, except in the case of special rate sheets or tariffs issued to cover conventions, excursions, etc. 2. To adopt as a uniform size for all such rate sheets or tariffs a vertical length of 11¼ inches and width of 8⅞ inches. 3. To arrange such sheets so as to show the rates to all stations in alphabetical order by each state, province and territory.

The Association unanimously adopted the recommendations of the general baggage agents, placing a limited liability on baggage (with an insurance provision for larger value), in view of the rapid increase in the quantity and value of personal baggage carried by individual passengers, altogether out of proportion to the charge made for the transportation of the passenger and baggage.

Papers were read from a number of associations which had been invited to send delegates. These included one by W. E. Rispin, G.T.R. ticket agent, Chatham, Ont., representing the Canadian Ticket Agents' Association; and J. E. Quick, General Baggage Agent G.T.R. and Secretary of the American Association of General Baggage Agents.

The following officers were elected: President, C. L. Stone, Louisville & Nashville Rd., Louisville, Ky.; Vice-President, O. H. Taylor, New England Navigation Co., New York; Secretary, C. M. Burk, Central Rd.

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FIRE-PROOF WINDOWS
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METAL STUDDING, etc.

TORONTO AND WINNIPEG

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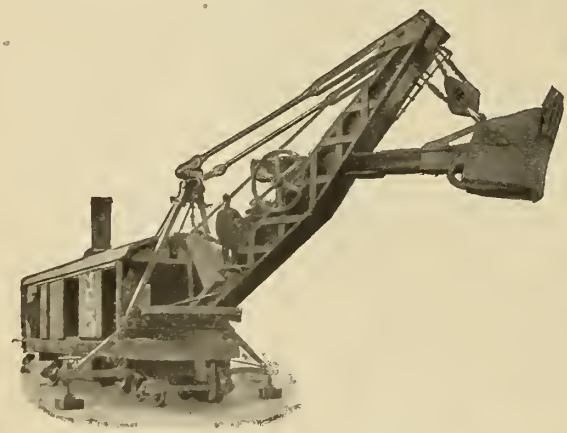

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RUSSELL MOTOR INSPECTION CAR No. 12

has been designed after an exhaustive study of your requirements for a light car, that can be handled by one or two men—can be easily taken down, and packed in the baggage car and that will go when you want it, and keep going. Next month, in this space, we will tell you about the engine, its simplicity and ease of operation.

WRITE FOR DESCRIPTIVE MATTER.

CANADA CYCLE & MOTOR CO., Limited, TORONTO JUNCTION

of New Jersey, New York; Executive Committee: W. H. Tayloe, Southern Ry., Washington; J. F. Fairlamb, New York Central Rd., New York; C. A. Cairns, Chicago & Northwestern Rd., Chicago.

The next meeting will be held at Atlanta, Ga., in Oct., 1907, when the annual address will be delivered by C. S. Crane, General Passenger Agent of the Wabash Rd.

W. E. RISPIN'S PAPER.

On behalf of the Canadian Ticket Agents' Association, I beg to thank you for the privilege extended to that body, to be represented at your meeting. We thoroughly appreciate the honor and trust that we may be able through our representatives to offer something to your important body that may be of mutual benefit and that may assist in carrying on the multifarious duties of ourselves and the members of your association in their very much more enlarged spheres. While we do not presume to offer advice, we perhaps feel that coming in contact, as we do, with the people who make up your clientele, that many matters may come under our observation, which if reported to our superiors, who are the members of your association, and acted upon may be the means of improving the service or revenue of the companies we represent, and therefore redound to our mutual credit. With this idea in view it would seem to me that a paper prepared for your body by our representative should deal with some questions bearing upon our duties, with a view to either simplification or improvement, or both. The increasingly heavy travel handled by the different railways without a perceptible hitch is satisfactory evidence that their system is good, but we would respectfully suggest that any plan of making the work of the ticket agent easier in handling this traffic, would be a step in the right direction. The increased demand on your staff of ticket agents on account of the enormous travel, has evolved a man behind the wicket who is far ahead of his predecessors of a few years ago, a great many of whom show by their marked ability that they are qualifying for more important positions, and as there need be no limit to a man's ambition in the railway service, some of us may, at some future date, have the honor of applying for membership in your association.

It is considered by the members of our Association that more simple tariffs could be issued, eliminating, wherever possible, anything pertaining to confuse one in quoting rates promptly and correctly to points on other railways. It is often necessary to spend considerable time reading foot-notes and exceptions before you can be sure you are quoting correct rates, and it would greatly assist in the carrying on of our work if the compilers of these tariffs would prepare them so that we could turn at once to a destination and find the rate simply stated. This is more particularly the case in quoting round trip rates to Pacific Coast points, and we feel could be very much simplified. It is often necessary to issue tickets for long circuitous trips on very short notice, and every effort should be made to furnish your agents with simply-worded tariffs, to enable them to meet this demand without the risk of being compelled to make up a shortage, on account of some post-script or exception having been overlooked.

We feel that the proper handling of a large coupon ticket office in the present day, stocked with tickets reading over the intricate labyrinth of rails, which form a perfect network on this continent, and which is increasing by leaps and bounds every year, demand men thoroughly competent to meet the exacting requirements of their positions, and that the railway companies should recognize the importance of their work, by making their remuneration commensurate with their arduous duties, as only by doing so can they retain the class of men that are absolutely necessary for the proper performance of their exacting requirements.

Nearly all the important railways operating in this country at present run limited trains, which are made a prominent feature in their advertisements, and which are a great convenience to the travelling public, and which also are a prime factor in securing traffic, but upon which trip passes are not accepted. We feel this is quite right, but would respectfully suggest that this embargo might be eliminated in transportation granted to ticket agents, for surely no better advertisement for these magnificent and luxurious trains could be obtained than the practical experience gained by the men who route your passengers for them, and who can afterwards glowingly describe to their customers the many benefits of their palatial equipment. Our time also when away from our offices is limited, and our desire is to reach our objective point as quickly as possible, so as to complete our business and return to our offices with the greatest despatch.

We earnestly endorse the recommendations of Mr. Cadwallader, Secretary of the International Association of Ticket Agents, in the paper read to your association at Old Point Comfort in 1904, particularly that portion of it referring to a more simple form of coupon tickets to be used by all connecting railways, but will not take up your time with further remarks on this subject, feeling sure that his able paper has received your consideration, and that the issue of a ticket or mileage book coupon to all roads has already been discussed by you.

Our Association has now been in existence 20 years, and has for its object the education and instruction of its members, by an interchange of ideas at our annual meetings, and by the reading of papers prepared by some member, who is supposed to make a special study of the subject treated by him. We try to handle every subject from the broadest standpoint, with a view of educating our members to be more valuable to their employers, and take up such subjects as interchange of traffic, simplifying the work in our offices, the proper conduct of it, the handling of excursion traffic, the improvement of our revenues, the best way of advertising and keeping it live and readable, the creating of new business or anything that will tend to prove of mutual benefit and extend our usefulness.

We feel that we are deeply indebted to the railways for the many courtesies extended to our Association, on the occasion of the different annual meetings, and we know that we have greatly benefited thereby, as the opportunity given to us of visiting different parts of the continent, of inspecting the terminals, of seeing how the business is handled, and of gaining the practical rather than the theoretical experience, enables us to impart this information to our patrons, who at once recognize the value of the information, which has been gained by actual experience, and we feel that the railways are also benefited, as the education gained by us on these trips makes us more experienced and competent in our work, and consequently more valuable officials, as no education a ticket agent can receive is equal to that obtained by actual experience of travelling over the same routes he is daily routing business over.

The local ticket agent should be an educator to the travelling public, and be posted in the most lucrative channels of trade desired by the company he represents, and should be in a position to make recommendations to his general passenger agent, that will be of assistance to him, and should therefore familiarize himself with the local requirements, and endeavor to educate his patrons to adopt the routes most desired by his own company, and if he does this properly, the general passenger agent will look to him for recommendations as to improvements in service, and the adoption of any new methods that may be necessary in the securing of lucrative business.

There are a great many different classes of tourists, numbers of whom do not know until they interview the ticket agent exactly where they desire to go, and we try to educate our members to be posted sufficiently, so as to be able to recommend to the intending tourist the place that will suit him, whether he be a hunter, a fisherman, a seeker after health, recreation and amusement, or simply a sight-seer, looking for new fields to conquer, and the agent that properly looks after this class of work is certainly a valuable man to his employer.

Two of the great Canadian railways are at present engaged in the building of two more transcontinental railways, which will open up a large and important field in our Northwestern Provinces, and give to our United States connections a new and enlarged field for their tourist business, which must necessarily increase to large proportions, as it has been demonstrated beyond a doubt that the resources of the great Canadian Northwest are practically illimitable, and they are therefore engaged in the opening up and building of a new country, which is destined to be the granary of the world, and to be the home of prosperous millions, from the teeming multitudes who come to us from the old world, and who will be able to make for themselves in that country, happy, prosperous and contented homes. We are only just beginning to know the productiveness of the land in our great Northwest, and the emigration to that country is at present only in its infancy, but the enormous travel of the past few years is an evidence of what it will grow to when we have three transcontinental railways engaged in promoting and encouraging this emigration, and the members of our Association realize that this will give us a very much enlarged field for our operations.

Travelling Passenger Agents' Meeting.

The American Association of Travelling Passenger Agents met at West Baden, Indiana, on Oct. 9, 10, 11, the President, C. E. Benjamin, General Agent C.P.R. Steamships, Chicago, Ill., presiding. The report showed a membership of 856. In the course of his address President Benjamin said: "We have an Association which can be made valuable to the lines we represent as well as to ourselves, if we will all join in an effort to make it a success. Every year several of our members are promoted to the position of general passenger agent. Title does not necessarily create brains; therefore, these gentlemen were just as well qualified to prepare papers or discuss matters pertaining to the handling of passenger traffic prior to their appointment as afterward, and the future general passenger agents and passenger traffic managers sitting before me to-day possess the brains and ability to handle any passenger topics which may be selected. There is not a brighter nor a cleverer class of men in the railway business, or any other business, than passenger representatives, and we are called the ornamental department simply on account of our indifference to other people's opinion. By a little concentration of thought and energy we have it in our power, through this Association, to raise our standard in the estimation of our management, as well as the general public. And I appeal to your better judgment in urging you to lend your active support in preparing papers to be spread on the minutes of our proceedings which will make them so valuable that they will be eagerly sought for by passenger traffic officials all over the country. Put aside your indifference and wake up to your possibilities. The passenger business is only in its infancy. This fact is demonstrated by the ever-increasing earnings."

On Oct. 10 the members visited French Lick, Ind., returning to West Baden for the annual ball. On Oct. 12 the party went to

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the Mammoth Cave in Kentucky, and on Oct. 13 were the guests of the Louisville passenger agents at luncheon, the races, etc.

The officers for the current year are: President, E. B. Pope, W.P.A. Chesapeake and Ohio Rd., St. Louis, Mo.; Vice-President, A. P. Massey, T.P.A., Boston & Maine Rd., Boston, Mass.; Sec.-Treas., G. C. Noble, E.P.A., Lehigh Valley Rd., Philadelphia, Pa. The next meeting will be held at Norfolk, Virginia, during the Jamestown exposition.

G.T.R. SEMI-ANNUAL MEETING.

The following report for the half-year ended June 30, was submitted at the meeting of shareholders in London, Eng., Oct. 11:

The following summary shows a comparison of the half-year's revenue account with that of the corresponding half-year, ended June 30, 1905:

June 30, 1905.		June 30, 1906.
£2,729,008	Gross receipts	£3,021,681 4 11
	Deduct—	
1,923,438	Working expenses, being at the rate of 72.31% as compared with 70.48% in 1905.	2,184,821 5 0
805,570	Net traffic receipts	836,859 19 11
	Add—	
12,931	Amount received from International Bridge Co.	16,012 16 7
6,507	Interest on Central Vermont Ry. bonds	6,506 14 3
60,311	Interest on securities of controlled lines and on St. Clair tunnel bonds acquired by the issue of G. T. 4% debenture stock	60,310 11 11
22,315	Balance of general interest account	25,177 12 5
£ 907,634	Net revenue receipts	£ 944,867 15 1

NET REVENUE CHARGES FOR THE HALF-YEAR.

June 30, 1905.		June 30, 1906.
£ 77,603	Rents (leased lines)	£ 77,603 0 9
488,746	Interest on debenture stocks and bonds of the Co.	488,745 19 10
45,836	Interest on debenture stock and bonds of lines consolidated with the G.T. Co.	45,774 16 9
....	Canada Atlantic Ry. deficiency	30,296 1 9
10,415	Detroit, Grand Haven, and Milwaukee Ry. deficiency	..
622,600		642,419 19 1
	Deduct—	
	Grand Trunk Western Ry. Repayment of amount advanced on account of interest, June, 1901 £ 6,221 9 6	
	Detroit, Grand Haven, and Milwaukee Ry. surplus 1,191 16 6	
		7,413 6 0
622,600		635,006 13 1
285,033	Leaving a surplus of	309,861 2 0
£ 907,633		£ 944,867 15 1

Adding the balance of £4,517 3s. 8d. at the credit of net revenue account on Dec. 31, 1905, to the above surplus for the past half-year, the total amount available for dividend is £314,378 5s. 8d., from which the directors recommend the payment of the following, viz.:

Half-year's dividend on 4% guaranteed stock	£149,670 8 9
Half-year's dividend on first preference stock	85,420 15 0
Half-year's dividend on second preference stock	63,210 0 4
	£298,301 4 1

leaving £16,077 1s. 7d. to be carried forward to next half-year's account.

Following is a comparison of receipts for the half-years ended June 30, 1906 and 1905:

Description of Receipts	1906.	1905.	Increase.	Decrease.
	£	£	£	£
Passengers	829,893	741,480	88,413	....
Mails and express	133,955	127,922	6,033	....
Freight and live stock	1,980,000	1,781,680	198,320	....
Miscellaneous	77,833	77,926	....	93
	£3,021,681	£2,729,008	£292,673	....

TRAFFIC STATISTICS.

	1906.	1905.	Increase.	Decrease.
Passengers carried	4,616,957	4,303,765	313,192	....
Average fare per passenger	43.14d.	41.35d.	1.79d.	....
Tons of freight and live stock	7,598,784	6,563,332	1,035,452	....
Average rate per ton	62.54d.	65.15d.	....	2.61d.
Tons carried one mile	1,442,477,714	1,255,101,395	187,376,319	....
Earnings per train mile	74.37d.	69.73d.	4.64d.	....

The average rate per ton per mile on the entire freight business was 0.67 of a cent, compared with 0.69 of a cent in the corresponding half-year.

The working expenses, excluding taxes, in the half-year were £2,107,118, or 69.73% of the gross receipts, compared with £1,901,753, or 69.69%; an increase in the proportion to the gross receipts of .04%.

Following is a comparison of revenue expenditure, including taxes, for the half-years ended June 30, 1906 and 1905:

	1906.	1905.	Increase.	Decrease.
	£	£	£	£
Maintenance of way, and structures	287,671	268,664	19,007	....
Maintenance of equipment	564,738	425,718	139,020	....
Conducting transportation	1,177,307	1,131,487	45,820	....
General expenses	77,402	75,884	1,518	....
Taxes	77,703	21,684	56,019	....
Total	£2,184,821	£1,923,437	£261,384	....
Percentage of gross receipts	72.31	70.48	1.83	....
Expenditure per train-mile	53.77d.	49.15d.	4.62d.	....

The train mileage of the half-year compares with that for the half-year ending June 30, 1905, as follows:

	1906.	1905.	Increase.	Decrease.
Passenger	4,063,785	3,984,703	79,082	....
Freight	5,354,923	5,103,671	251,252	....
Mixed trains	333,036	303,930	29,106	....
Total	9,751,744	9,392,304	359,440	....

It will be observed that the gross receipts for the half-year show an increase of £292,673, or 10.72%; the working expenses, including taxes, an increase of £261,384, or 13.59%; and the train mileage an increase of 359,440, or 3.83%.

The total charges to capital account for the half-year were £54,578 4s. 11d. Of this £14,733 5s. 9d. was for discount and commission on £1,100,000 4% guaranteed stock issued during the half-year. The actual expenditure on capital account was as follows:

New works	£ 3,525 13 5
Double track	5,011 9 8
Land purchased	31,307 16 1
	£ 39,844 19 2

No additions to rolling stock at the expense of capital have been made during the half-year. Eight mogul-compound freight engines and 1,201 box cars have been purchased, and 3 parlor, 3 first-class, 5 baggage cars, and 1 snow plough have been built in the company's shops on revenue account.

The gross receipts of the Canada Atlantic Ry. for the half-year were £189,604, and the working expenses £159,375, leaving a net profit of £30,229. The net revenue charges for the half-year were £60,525, so that there was a net revenue deficiency of £30,296. The number of passengers carried during the half-year was 223,047; and the passenger train receipts, including mail and express receipts, were £40,501. The quantity of freight moved during the half-year was 686,670 tons, and the receipts from this traffic were £143,927.

The gross receipts of the Grand Trunk Western Ry. for the half-year were £519,016, against £512,995 in 1905, and the working expenses were £435,459, against £429,438, leaving a net profit amounting to £83,557 in each half-year. The net revenue charges for the half-year were £82,718, against £76,121, so that there was a net revenue surplus for the half-year of £839, as compared with £7,436 for the corresponding half-year of 1905. Adding the net revenue surplus of £18,244 for the half-year ended Dec. 31, 1905, to the above surplus of £839 and the balance of £351 carried forward June 30, 1905, the net revenue balance, June 30, was £19,434, which will admit of the payment of the full interest on the second mortgage income bonds for the year ended June 30, 1906, and the repayment to the G.T.R. of £6,221, advanced on account of interest on the first mortgage bonds for the half-year ended June 30, 1901. The number of passengers carried during the half-year was 840,972, against 763,066, an increase of 10.21%; and the passenger train receipts, including mails and express receipts, were £147,186, against £133,197, an increase of 10.50%. The quantity of freight moved during the half-year was 1,635,405 tons, against 1,563,857 tons, an increase of 4.57%, and the receipts from this traffic were £371,235, against £379,172 in 1905, a decrease of 2.10%.

The gross receipts of the Detroit, Grand Haven, and Milwaukee Ry. for the half-year were £161,279, against £134,771 in 1905; the working expenses were £122,284, against £107,980, thus leaving a balance of £38,995, against £26,791, compared with the corresponding half-year of 1905. The net revenue charges for the half-year were £37,803, against £37,206 in 1905, so that there was a net revenue surplus of £1,192, as compared with a deficiency of £10,415 for the corresponding period of 1905. The number of passengers carried during the half-year was 292,850, against 265,035, an increase of 10.49%; and the passenger receipts, including mails and express receipts, were £46,788, against £42,431, an increase of 10.27%. The quantity of freight moved was 784,522 tons, against 616,540 tons in 1905, an increase of 11.03%; and the receipts from freight traffic were £110,933, against £88,204 in 1905, an increase of 25.77%.

Satisfactory progress has been made with the construction of the main line of the G.T. Pacific Ry. between Portage la Prairie, Man., and Edmonton, Sask., and the Lake Superior branch. Although the contractors have experienced some difficulty in procuring the necessary labor, it is not anticipated that any material delay will take place in the completion of the work on those portions of the line by the time originally contemplated. During the last session of the Dominion Parliament an

(Continued on page 669.)

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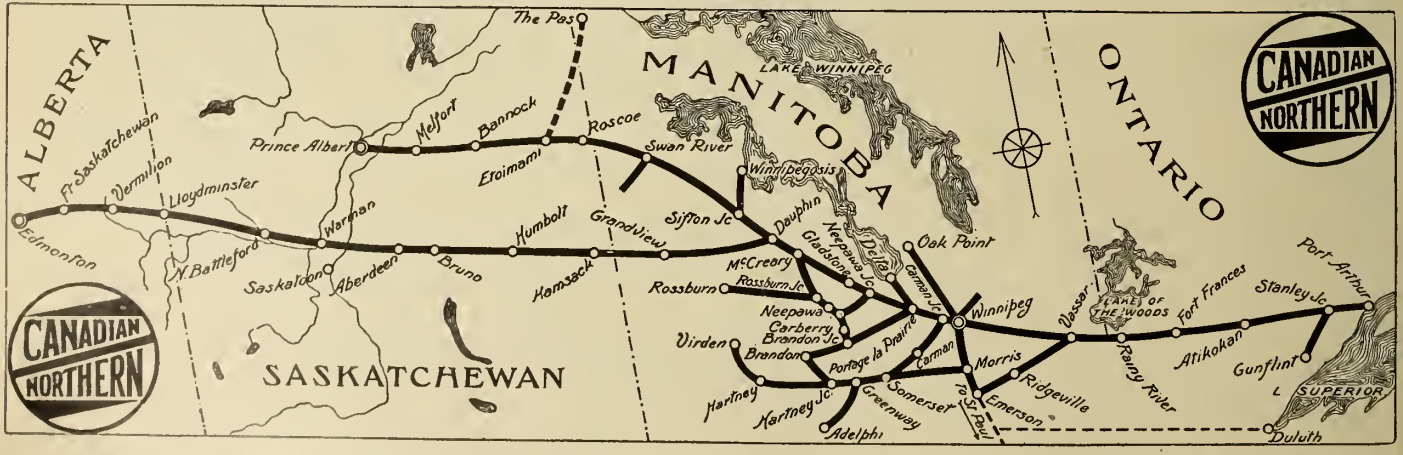

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G.T.R. SEMI-ANNUAL MEETING.

(*Continued from page* 665.)

act was obtained for the incorporation of the G.T. Pacific Branch Lines Co. for the purpose of the construction of the branches contemplated by the act of incorporation of the G.T. Pacific Ry. Co. and other branches which it may eventually be necessary to build, and also a further act authorizing the creation of $25,000,000 of debenture stock of the G.T.P. Ry. Co. for the purpose of providing funds for the equipment of the line.

The Chief Engineer reports that the expenditure for maintenance of the property, during the half-year, was $92,500.00 in excess of the corresponding period of last year. The company's permanent way and works have been maintained in good condition.

The Superintendent of Motive Power reports the expenditure, mileage, etc., as follows:

Half-year ended.	Total Expenditure.	Train Mileage.	Rate of Expenses per Mile.		
			Train	Engine	Car.
			Cents	Cents	Cents
June, 1906..	$4,347,556	9,751,744	44.58	34.92	2.77
" 1905..	3,841,987	9,392,304	40.91	31.82	2.65

An increase in expenditure of $505,569.00 or 13.16% compared with an increase in train miles of 359,440, or 3.83%.

	Passenger Trains	Freight Trains	Mixed Trains.
The average number of cars moved per train was.....	4.3	25.5	7.9
And for the corresponding period.....	4.2	24.7	7.8

During the half-year 27 locomotives were scrapped or sold, and eight mogul compound freight engines were purchased. The actual stock June 30, 1906, was 809 locomotives, against the official figure of 803 locomotives, being a surplus of 6 locomotives.

The revenue account was as follows:

RECEIPTS.

	£	s.	d.	£	s.	d.	£	s.	d.
Passengers							839,893	7	8
Less—									
International bridge tolls	705	0	1						
St. Clair tunnel tolls	7,823	12	6						
				8,528	12	7			
Mails and express							133,955	3	9
Freight and live stock									
Less—									
Cartage, etc.				2,072,744	19	1			
International bridge tolls	44,570	2	1						
St. Clair tunnel tolls	13,340	4	7						
	34,835	3	6						
							1,979,999	8	11
Miscellaneous receipts, rents, tolls, etc.				92,745	10	2	77,833	4	7
							£3,021,681	4	11

EXPENDITURE, JUNE 30, 1906

		£	s.	d.
Maintenance of way and structures	9.52%	287,671	4	8
Maintenance of equipment	18.69%	564,738	2	0
Conducting transportation	38.96%	1,177,307	1	11
General expenses	2.56%	77,402	1	9
Total working expenses	69.73%	2,107,118	10	4
Taxes	2.58%	77,702	14	8
	72.31%	2,184,821	5	0
Balance to net revenue account		836,859	19	11
		£3,021,681	4	11

Sir C. Rivers Wilson, President, in moving the adoption of the report, referred at considerable length to the figures therein, and the statistical tables. Upon the question of taxation he said: "We are now beginning to experience the results of the legislation last year at Ottawa, which put a heavy protective duty upon the importation of steel rails. It amounts, as regards importations from any other country except Great Britain, to $7.84 per ton, equivalent to about £1 12s. 3d., on rails imported from Great Britain, which is preferentially treated to the extent of 33%, the duty amounts to £1 1s. 6d. The result of this duty falls very heavily upon railway companies in Canada, and affects us to the extent of about £40,000 a year. I may take the opportunity of mentioning how this heavy import duty will affect the G.T. Pacific, which is in course of construction. In 1904, when we made our arrangement with the Government, and the Government undertook to guarantee mortgage bonds for the construction of the road, our estimates were based upon what would be the cost of construction at that time. We certainly never anticipated that the very next year Parliament would impose this heavy additional burden upon the railways, which in the case of the G.T. Pacific will amount to something like $4,000,000 over and above the original cost. No doubt the Dominion Parliament and Government were actuated by the best motives; but we are, unfortunately, the sufferers, and I venture to think that, morally, we are entitled to some consideration, if not compensation, at the hands of the Government. We shall press that view upon the Government, and I think we stand upon strong moral ground in asserting our claim." After referring to the increased cost of maintenance, owing to the larger quantities of freight handled, and the increased cost of labor and materials, he pointed out that the rolling stock owned by the company in Dec., 1894, was represented at June, 1904, by 22,082 cars with a capacity of 550,595 tons, an average capacity of 25 tons; a total increase of 149,758 tons, equal to the addition of 8,437 cars of the average capacity of those in use in 1894. This had been accomplished without any charge to capital. All that had been done in this direction was insufficient to enable the staff to cope with the ever-increasing volume of business and meet the urgent demands for increased facilities of transport. Fortunately the company was deriving useful temporary assistance from the use of cars in course of construction for the G.T. Pacific Ry., of which 1,800 had been supplied up to July, and 3,000, it was expected, would be on the road by Nov. 1. The Board, in view of these circumstances, had authorized the General Manager to increase the official stock by 2,500 freight cars, the cost of which will be charged to capital as they are delivered, and as an illustration of the great increased cost of materials and labor in Canada within the last few years, freight cars were being bought in 1905 at $475 a car, and the present price was $850.

In connection with the matter of local taxation the President pointed out that an addition to expenses was included in the accounts for the half-year, of £56,000 for taxes, of which £46,000 represented the arrears payable in Michigan in consequence of the recent decision of the U.S. courts, and £10,000 additional current taxation both in Michigan and Ontario. It was first proposed to spread the payment of the £46,000 over two years, but the increasing revenue led the Board to decide to get rid of the liability in the recent half-year. He then continued: "Another thing had also happened. The Ontario Government had thought proper to obtain legislation by which a new heavy taxation was imposed upon the railroads, and which affected us to the extent of $95,000 a year. I must say I feel that the railways have not altogether been fairly treated in this respect. As late as 1904 the rate of taxation on railways in Ontario was $5 a mile, and we were paying at that time, on that basis, $13,000 a year. In 1904 the rate was increased to $30 a mile upon single track and $10 upon second track. In consequence of that our payments were raised from $13,000 to $83,000 a year, and now, suddenly, a new taxation has been sprung upon us. At the last meeting of Parliament the tax was again raised—two years after the last increase—to $60 a single mile and $20 for the second track, which placed an additional taxation upon us of $95,000, making a total taxation of $178,000, or an increase upon what it was three years ago of no less than $165,000. You may ask, and I think very reasonably, 'Are there no means by which the railways can defend themselves against these somewhat arbitrary proceedings on the part of Parliament?' I am afraid we are helpless in the matter. Any increase of rates can only be obtained with the concurrence and approval of the Railway Commissioners. I have nothing to say against the manner in which these gentlemen do their work, but the authority invested in them is really very considerable, and may be very oppressive to the railroads; in point of fact, it almost amounts to this, that the management of the railways may be said to be delegated to a Government department without any responsibility. To show you how difficult it is for us to defend ourselves, at the very time when this oppressive legislation was passing through the Parliament of Ontario the Board of Trade of Toronto was putting strong pressure upon the Railway Commissioners to make us reduce our rates, and all this time we were being urged and pressed from all sides to build new stations, to raise tracks, and afford other expensive facilities for the advantage of the people of Ontario; and having given these new facilities, these very facilities are made a reason for insisting that we should be further taxed. I think the shareholders should know what a hard struggle we have to hold our own against the oppression we often meet at hands where I think we ought to receive better treatment. Before leaving this branch of the accounts, let me again impress upon you the impossibility of ever attaining anything like finality in expenditure. You may remember that Mr. Hays, when he addressed you in this hall for the first time, said, 'In order to earn money you must spend money.' Indeed, in the case of American railways it is commonly said that a progressive railway must be rebuilt and re-equipped every 15 to 20 years. The life of the rails and ties is from eight to ten years; the average life of a freight-car is about ten years, and the average life of a locomotive is about 20 years. Large sums, again, have to be spent upon repairing and strengthening bridges. The great Pennsylvania Rd. has been practically rebuilt three times over. We cannot control these things; we must accept them. All we ask of you is that you will give us credit for using our utmost endeavors to provide that the expenditure which we have to sanction should be judicious, and so far as possible remunerative. In view of the heavy capitalization of the company, and the consequent necessity for keeping down our fixed charges as much as possible, we have undoubtedly during these recent years of prosperity called upon revenue to contribute freely towards the betterment of the property, but we believe that that policy has been one of the main causes of the great improvement in the credit of the company. And let me add this further point for your consideration: that when the lean years come upon us, as come they assuredly will, we shall have a reserve of strength to fall back upon which will allow us to curtail expenditure without impairing the efficiency of the service or disturbing the financial position of the company.

He next referred to the subsidiary lines:

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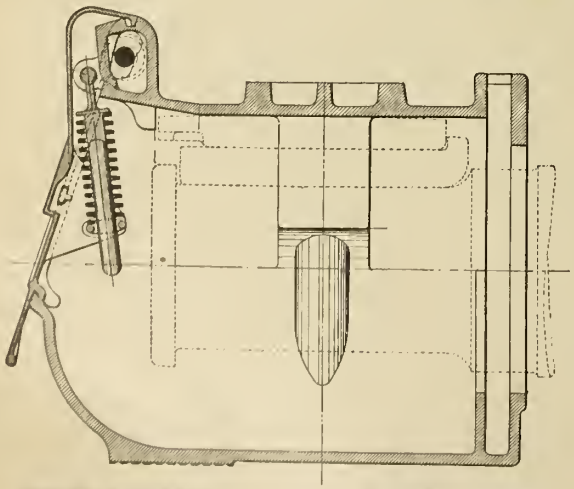

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"The Canada Atlantic Railway has still a certain amount of leeway to make up before it comes up to the standard of the G.T. R., but the work is progressing fast, and I have no doubt in a very short time we shall get into shipshape. The whole of the important section between Coteau Junction and Ottawa has been put in excellent order; the roadway has been strengthened, heavier rails have been put down, and all the stations have been very much improved. I was more than ever impressed as I went over it with the great value which this line will ultimately be to our system, not only as keeping out competitors, but as affording facilities for carrying produce from the West. The results of the operation of the G.T. Western for the past half-year have been of a satisfactory character, and that company has, for the first time since the reorganization of the old Chicago and G.T. Company in 1900, been able to pay the full dividend on its income bonds, and in addition to repay to the G.T.R. £6,221 advanced to make up the interest on its first mortgage bonds in 1901. This is a very different condition of affairs to that prevailing prior to 1900, when for many years the G.T.R. had to advance considerable sums year by year to provide for the interest on the bonds of that line. The Detroit, Grand Haven and Milwaukee Ry. has also had a prosperous half-year, and for the first time for more than 20 years has been able to cover its interest charges during the first half of the year, and, in addition, has been able to repay to the G.T.R. £1,192 on account of advances previously made. This line has made very considerable progress during the last few years, and going no further back than the half-year ended June 30, 1904, the gross receipts have advanced from £117,746 to £161,279 in the past half-year, whilst the working expenses have only increased from £100,078 to £122,284, and the net revenue has increased more than double, from £17,668 to £38,995.

In conclusion, he spoke of the G.T. Pacific Ry., stating that all accounts reaching the directors were extremely satisfactory, the only drawback being the insufficiency of labor. When he was in Canada in July there were about 5,000 men at work upon different portions of the line, but many of these went to work in the harvest fields in Aug., which delayed the work. By this time next year he expected to see nearly 1,000 miles completed, 200 miles of the Lake Superior branch, and 790 miles of the Prairie lines from Winnipeg to Edmonton. "My only regret," he added, "is that the Government have not been so expeditious as our own people in the progress they are making on their portion of the road. They are building from Winnipeg to Lake Superior Junction—a most important link—and we had every assurance that that portion of the line would be completed at the same time as ours; but, I am afraid it is rather doubtful whether the Government will be ready. Mr. Hays (who is just returning from a visit of inspection over the G.T. Pacific Ry.), wrote me a letter dated Sept. 22, of which I will read you a few extracts: 'As to the country traversed, I should say that there was not exceeding 5% to 7% which was incapable of producing good crops of grain following the first application of the plough, and in those sections of the country of more broken character, such as the Sand Hills, near Carberry, the Eagle Hills, Touchwood Hills, Round Hill Valley, and Beaver Hills, where the land is not adapted to grain, it will all eventually be utilized for stock-raising and diversified farming. The settlers are going in along our line in all directions.' Then he says: 'As to the work itself, thanks to the careful and persistent supervision of our chief engineer and his staff, I think what has been completed will present a more creditable appearance in uniformity and excellence of the work than any new railway I have ever seen. Certainly nothing heretofore done in Canada will approach it. Our work on some sections of the line is not as far along as we could hope, having been delayed not only by the general scarcity of labor prevailing all over Canada during the past year, but by the temporary diversion from our employ to the harvest fields of such a portion of our labor as was attracted by the higher prices paid by the farmers during the brief period they have for safety getting in their crops. Part of the force which left us in this way is now returning, and the contractors are strengthening their numbers in other directions, so that when we close down the works, because of the approach of winter, we expect to have to carry over to next spring not more than 25 to 30% of the grading necessary to complete. We shall, during the winter, lay out such a programme for our contractors to follow as will, we trust, ensure beyond a doubt the laying of our rails into Edmonton in time to carry out our promise that we would move a portion of the crop in 1907. The settlers all along the line are depending on us to do this, and nothing will be left undone on our part to accomplish the result.' He further adds: 'I think it is very generally admitted that we are going to have the best transcontinental road on this side of the Atlantic.'"

In conclusion he referred to the act passed by the Dominion Parliament incorporating the G.T. Pacific Branch Lines Ry. Co. The financing of the various extensions would probably be more easy by issuing securities of this separate company with the guarantee of the G.T. Pacific Ry. Co.—not of the G.T.R. A second act passed last session authorized the creation of $25,000,000 of G.T. Pacific Ry. debenture stock. Of the debenture stock $15,000,000 or £3,000,000 will be issued, as required, to provide the rolling stock which the company is called upon to put on the line within a certain period. It was proposed at a convenient date to put out about £1,000,000 of the debenture stock to pay for cars, etc., ordered. As delivered, these cars are put into use by the G.T.R. and are earning interest.

The resolution adopting the report, and authorizing the payment of the half-year's interest upon the 4% guaranteed stock, 2½% on the first preference stock and 2½% on the second preference stock, was adopted.

Central Vermont Ry. Co.'s Report.

The seventh annual report of the directors of this company, which is controlled by the G.T.R., for the year ended June 30, presented at the annual meeting Oct. 9, gave the following particulars:

Gross receipts		$3,836,976.16
Operating expenses		3,048,554.29
Balance		$ 788,421.87
Taxes		101,793.50
Net earnings		$ 686,628.37
Other income, interest on securities held by the company		13,840.00
Total income		$ 700,468.37
Interest on bonds, and rental of leased lines		695,952.11
Net surplus over fixed charges		4,516.26
REVENUE.		
Receipts from all sources, increase		$ 279,200.45
EXPENDITURE.		
Maintenance of way and structures, decrease		18,822.33
Maintenance of equipment, increase		233,912.81
Conducting transportation, increase		32,995.53
General expenses, increase		6,731.77
Total operating expenses, increase		254,817.78
Taxes, increase		4,033.77
Fixed charges, increase		22,502.49
Improvements included in operating expenses, increase		138,872.88

The property has been well maintained, and the result of operation has been very satisfactory, the large increase in earnings being particularly gratifying. Additions and improvements to the value of $341,947.17 have been made during the year, and included in operating expenses. In order to promptly and satisfactorily handle the greatly increased traffic, it has been found necessary to add to the locomotive equipment; 14 modern locomotives of large capacity (4 passenger and 10 freight) have been acquired at a cost of $218,000.00. The purchase was made under an equipment trust agreement, in accordance with which a cash payment of $18,000.00 has been made; the remaining $200,000.00 to be paid in equal annual instalments, extending over 10 years, with interest payable quarterly at 4% per annum.

The report is signed by C. M. Hays, President, and the reports of various officers are appended.

E. H. Fitzhugh, Vice-President, states that there has been charged to operating expenses $341,947.17, expended upon improvements and extraordinary expenditure distributed as follows: New bridges, $67,878.79; new tracks, sidings and spurs, $819.78; new fuel and water stations, engine houses and turn-tables, $11,856.51; new stations and warehouses, $885.56; new steel rails (difference between value of old rails taken up and new rails put down), $10,000.00; new tools and machinery, $2,044.40; ballasting, $1,563.03; new locomotives, $103,811.18; new passenger cars, $26,083.55; new cabooses, $1,041.31; new freight cars, $115,664.90; new crossings, $296.16; The train mileage was: passenger, 1,066,703, increase, 19,506; freight, 1,373,045, increase, 20,079; mixed, 183,794, increase, 5,598; miles earning revenue, 2,623,542, increase, 45,183; piloting, switching, light running and work trains, 729,601, increase, 18,312; total engine miles run, 3,353,143, increase, 63,495. The car mileage was, passenger, 4,948,201, increase, 159,829; freight, 32,393,113, increase, 1,630,079; total car mileage, 37,341,314, increase, 1,789,908. The percentage of expenses to earnings was 79.45 as compared with 78.52% in the preceding year, an increase of .93%.

The percentage of improvements included in operating expenses to the earnings, was 8.91% as compared with 5.71% in the preceding year. The percentage of ordinary expenses to the earnings, was 70.54% as compared with 72.81% in the preceding year. The number of tons carried one mile was 280,071,486, an increase of 12,256,418; the earnings per freight train mile were $1.72, an increase of 12c., and the earnings per ton per mile, 0.92c., an increase of 0.04c. The number of passengers carried one mile, 45,462,192, shows an increase of 3,068,394; the earnings per passenger train mile, $1.06, an increase of 4 cts., and the earnings per passenger mile 2.28 cts., a decrease of 0.01c. The construction of the Bethel Granite Ry., 5.1 miles long, was completed and opened for traffic Nov. 25, 1905; seven miles of track between Barre and Williamstown have been ballasted with gravel and surfaced. Passing track at West Hartford on the 3rd district has been extended 712 ft., and 1,133 ft. of new sidings laid to various industries along the line. The engine house at Jeffersonville, station at Belchertown and freight house at New London have been rebuilt, the former structures having been destroyed by fire, Feb. 5, April 18, and Oct. 14, 1905, respectively. A new freight house has been built in Brattleboro, and the rearrangement of tracks in the yard is in progress. A new coal chute has been erected at White River Junction. A new 70 ft. turntable has been installed at St. Albans, and the one thereby released placed at White River Junction. New steel bridges have been erected at Miller's Falls, Northfield Farms, Montpelier, and Jeffersonville to replace light iron and wooden structures. Iron bridges released from the main line have been utilized at Williamsville and Cambridge; and extensive repairs have been made to bridges at seven different points.

Four new 10-wheel passenger locomotives have been placed in service; 47 locomotives have received heavy repairs, and 83 light repairs; one tender has been built complete, and a new boiler added to a locomotive.

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Seven refrigerator cars and six cabooses were built at the St. Albans shops; 30 freight cars were equipped with air brakes, and 223 cars piped for air brakes. The regular maintenance and repair work was also attended to at the car shops.

The increased freight and passenger business handled has necessarily increased the expense of conducting transportation, but this has to a large extent been offset by the decrease in the expense of car service and locomotive hire resulting from the acquisition of the new cars and engines. The increase of $18,773.04 appearing in injuries to persons account, is due to the settlement of a number of claims covering injuries sustained during the past two or three years having been deferred until the present year.

The total mileage operated is 695.6, made up as follows: main track (including 6.2 miles of double track), 203.2 miles; second main track, 6.2 miles; branch lines, 173.4; yard tracks, sidings and spur tracks, 105.9 miles; leased lines: main track, 123.5 miles; branch lines, 36.0 miles; yard tracks, sidings and spur tracks, 47.4 miles.

The condensed balance sheet is as follows:

ASSETS.

Cost of road and equipment	$13,899,296.06
Bonds deposited with trustee	1,000,000.00
Materials and supplies on hand	170,396.82
Cash on hand and in transit	176,477.61
Investment in bonds	342,779.68
Equipment renewals	543,000.00
Sundry accounts collectible—	
Due from agents	118,016.87
Due from U.S. and Canada, carrying mails	21,470.17
Due from sundry railroads and individuals	258,448.13
Advances fast freight line, account working fund	9,950.00
	$16,539,835.34

LIABILITIES.

First mortgage bonds	$12,000,000.00
Common stock	3,000,000.00
Interest due	13,782.00
Interest accrued not due	78,408.67
Taxes accrued not due	55,790.47
Sundry accounts payable—	
Vouchers and pay rolls	458,728.10
Sundry railroads and individuals	144,828.85
Notes payable	225,000.00
Car trust notes	543,000.00
Profit and loss	20,297.25
	$16,539,835.34

Following are the officers and directors for the current year: President, C. M. Hays; Vice-President, E. H. Fitzhugh; other directors: E. C. Smith, W. Seward Webb, J. W. Stewart, J. G. McCullough, E. H. Baker, H. B. Day, S. E. Kilner, E. L. Marston, A. Tuttle, G. C. Jones, C. P. Smith,; treasurer and clerk, W. H. Chaffee; Auditor, W. G. Crabbe.

Minneapolis, St. Paul, and S.S. Marie Ry.

Following are some of the statistical tables giving details of the number of passengers and freight carried, which were appended to the annual report for the year ended June 30, 1906: extracts, from which were given in our last issue:

TRAFFIC AND MILEAGE STATISTICS.

Train Mileage—	1905	1906
Freight trains...(miles)	2,336,233	2,812,896
Passenger trains "	1,454,782	1,874,523
Mixed trains.... "	523,827	484,273
Non-revenue trains "	162,684	152,060
Total train mileage "	4,477,526	5,323,752
Car Mileage—		
Freight—		
Loaded cars north or east	27,108,038	31,000,020
Loaded cars south or west	30,043,207	36,301,543
Empty cars north or east	10,898,799	12,277,415
Empty cars south or west	7,365,564	7,359,056
Total freight car mileage	75,415,608	86,938,034
Passenger coaches, mail and express cars—		
North or east	4,766,258	5,947,222
South or west	4,819,007	5,963,627
Total passenger car mileage	9,585,265	11,910,849
Freight Traffic—		
Tons of revenue freight carried	3,913,161	4,886,498
Tons of non-revenue freight carried	648,709	843,543
Total tons freight carried	4,561,870	5,730,041
Tons of revenue freight carried one mile	882,474,735	1,084,153,866
Tons of non-revenue freight carried one mile	170,813,742	190,796,599
Total tons freight carried one mile	1,053,288,477	1,274,950,465
Tons of revenue freight carried one mile per mile of road	497,455	536,606
Tons of non-revenue freight carried one mile per mile of road	96,288	94,436
Total tons (all classes) freight carried one mile per mile of road	593,743	631,042
Average distance haul of one ton revenue freight, miles	225.51	221.87
Average distance haul of one ton freight (all classes)	230.89	222.50
Average amount received per ton for revenue freight	$1.63	$1.73
Average amount received per ton per mile revenue freight	7.24 mills	7.81 mills
Freight earnings per mile of road	$3,616.14	$4,205.75
Freight earnings per train mile	$2.24	$2.58
Average number of freight cars in train	26.37	26.37
Average number of loaded cars in train	19.98	20.41
Average number of tons revenue freight per train (entire line)	308.55	328.81
Average number of tons of non-revenue freight per train (entire line)	59.73	57.87
Average number of tons of all classes freight per train (entire line)	368.28	386.68
Average number of tons revenue freight per train (main line)	358.51	382.08
Average no. of tons revenue freight per train (branch lines)	117.82	172.75
Average no. of tons revenue freight in each loaded car	15.44	16.11
Average no. of tons of non-revenue freight in each loaded car	2.99	2.83
Average no. of tons of (all classes) freight in each loaded car	18.43	18.94
Passenger Traffic—		
No. of passengers carried earning revenue	931,174	1,173,869
No. of passengers carried one mile	78,878,949	111,058,518
No of passengers carried one mile per mile of road	44,464	54,969
Average distance carried (miles)	84.71	94.61
Average amount received for each passenger	$1.93	$2.07
Average rate per passenger mile (cents)	2.28	2.19
Passenger earnings per mile of road	$1,270.51	$1,487.83
Passenger earnings per train mile	$1.14	$1.27
Average no. of passenger cars per train	4.84	5.05
Average no. of passengers per train	40	47
Miscellaneous—		
Gross earnings per mile of road	$4,913.60	$5,728.83
Operating expenses per mile of road	2,538.14	2,863.09
Net earnings per mile of road	$2,375.46	$2,865.74
Average mileage operated during the year	1,773.98	2,020.39

The expenditures charged to the fund appropriated for additions and betterments during the year were:

Right of way (realignment Minn. Division)	$ 53,096.97
Side tracks	141,981.03
Rails and fastenings, Difference between 60 lb. and 80 lb. rails relaid	98,073.13
Buildings	20,448.61
Fuel and water stations	45,335.22
Shops, engine houses and turntables	18,378.50
Crossings, signs and cattle guards	1,793.28
Grade reductions (Minnesota Division)	239,617.58
Filling bridges	14,155.42
Widening and ballasting	50,507.93
Bridges and culverts	40,680.70
Telegraph lines	30,111.91
Fencing	9,786.42
	$ 763,966.70
Balance at credit of fund, June 30, '05	$ 183,977.74
Appropriated from surplus	1,050,000.00
	$1,233,977.74
Deduct expenditures as above	763 966.70
Balance forward June 30, 1906	$ 470,011.04

The net amount expended upon rolling stock was $1,881,790.86, the gross being $1,945,900.85, represented by:

1,500 box cars	$1,062,673.80
60 refrigerator cars	65,723.07
37 locomotives	583,188.02
10 passenger coaches	66,704.65
2 dining cars	35,473.43
2 combination coaches	12,872.13
4 baggage and mail cars	21,739.66
4 sleeping cars	68,755.76
1 wrecking crane	10,751.25
2 ballast unloaders	11,664.90
1 tool car	466,00
Advances account of equipment under construction, etc	5,888.18

The difference of $64,109.99 was accounted for by cars destroyed.

GENERAL LEDGER BALANCE SHEET, JUNE 30, 1906.

DEBITS.

Cost of road, acquired lines, extensions and equipment		$71,625,181.63
Advances for new equipment		1,898,869.53
Real estate owned		251,414.01
Stocks and Bonds owned—		
St. Paul Union Depot stock	$ 100,000.00	
Minnesota Transfer Ry. stock	7,000.00	
Western Express Co's stock	25,000.00	
Sault Ste. Marie Bdg. Co. stock	500.00	
Sault Ste. Marie Un. Depot Co. stock	50,590.56	
Benton Packet Co. stock	6,000.00	
Treasury Stock, this company	225,600.00	
Minnesota Transfer Ry. Co. bonds	9,000.00	
Bonds, village of Henning	1,500.00	
Bonds, village of Alexandria	16,000.00	
		441,190.56
Materials and supplies		1,309,306.90
Due from—		
Foreign roads	$ 184,479.47	
Agents and conduc'rs	495,608.98	
U.S. Post Office Department	62,211.31	
Bills and accounts receivable	311,977.43	
Cash — Minneapolis, St. Paul, New York and London	3,176,580.36	
Total cash and current assets		4,230,857.55
Other accounts		7,501.72
		$79,764,321.90

CREDITS.

Capital stock—		
Common	$14,000,000.00	
Preferred	7,000,000.00	
		$21,000,000.00
Funded debt—		
First mortgage M. & P. bonds, 4%	$ 306,000.00	
First mortgage M. S. S. & Atl. bonds, 4%	8,204,000.00	
First mortgage M., St. P. & S. S. M. consolidated bonds	38,105,000.00	
Second mortgage M., St. P. & S. S. M. bonds	3,500,000.00	
		50,115,000.00
Bills payable—		
Car trust notes		40.184.91
Interest accrued on bonds due July 1	$ 930,245.00	
Accrued taxes not yet due	205,026.98	
		1,135,271.98
Current liabilities—		
Vouchers	$ 1,101,533.48	
Pay rolls	479,783.41	
		1,581,316.89
Betterment and improvement fund		470,011.04
Dividends due and unpaid		9,427.50
Income account		5,413,109.58
		$79,764,321.90

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Projects, Construction and Betterments.

Barrie, Ont.—Application has been made on behalf of F. Nicholls, Toronto, to the Barrie, Ont., Town Council, for a 25-years' franchise for a street railway, etc. It is said that if the franchise is granted, application will be made for parliamentary authority to construct a system of electric railways along both sides of Kempenfeldt Bay, and to connect with certain steam railways.

Brantford and Hamilton Electric Ry.—Grading is reported completed from Ancaster, Ont., for six miles westerly, and one mile easterly. Two additional grading gangs, making eight in all, have been working since Oct. 1, and the contractors expect to have the whole distance from Hamilton to Brantford graded by Jan. 1, 1907. (Oct., pg. 597.)

British Columbia Electric Ry.—Application will be made next session of the Dominion Parliament for an act declaring the works of this company to be for the general advantage of Canada.

The Dominion Parliament will be asked next session for an act confirming an agreement dated July 9, 1904, made between the B.C.E.R. Co., the C.P.R., Lord Strathcona, and R. B. Angus, as trustees, respectively, whereby it was agreed, among other things, that the B.C.E.R. Co. should electrically bond and thereafter, for a term of years, operate the portion of the C.P.R. between Granville St., Vancouver, to Greer's Beach or Kitsilano; also an agreement between the same three parties, by which the B.C.E.R. Co. was to electrically bond, and thereafter operate the Vancouver and Lulu Island Ry., from Vancouver to Steveston, with a spur along False Creek. It is also desired that power be given to the B.C.E.R. Co. to enter into other agreements for similar purposes with any other railway or railways in the province. (Oct., pg. 597).

Central Ry. Co. of Canada.—Sir Adolphe Caron and Senator Domville returned to Canada recently, after a visit to Great Britain, in connection with the negotiations with a British syndicate respecting the construction of the proposed railway. A London, Eng., report of Sept. 20 states that there are some difficulties in the way, and it is not likely that there will be anything further done for some time. An action has been entered by seven members of one of the company's survey parties for amounts totalling $1,102 for salaries while out on survey work in Prescott and Russell counties. (July, pg. 413.)

Chatham, Wallaceburg and Lake Erie Electric Ry.—By a decision of the Board of Railway Commissioners the C.W. and L.E. Ry. has been given permission to cross the G.T.R. at rail level at William St., Chatham. This will enable the railway to arrange for the construction of its line on to Lake Erie. (Dec., 1905, pg. 593.)

Collingwood, Ont.—An application has been made to the Town Council, for a franchise for the construction of a cross-town electric railway from east to west. The company is asking for an exclusive franchise for 30 years, the right to renew for 30 years, exemption from taxes, except school taxes, and a free site for power house and workshop. A special committee was appointed to give the proposition consideration. Among those interested in the proposition are: A. E. Creswicke, H. Lennox, H. H. Strathy and F. A. Lett.

Edmonton, Alta.—The city engineer has been instructed by the City Council to prepare an estimate for the construction of a street car system. An application had been made by the Strathcona Radial Tramway Co., for a franchise for a street railway system in Edmonton to connect with an interurban line to Strathcona, and the council asked the company to make a definite proposition and submit plans. At the same time the council decided that it would be right, before granting any franchise to a company, to ascertain the cost of constructing a line as a municipal enterprise.

The Hamilton Cataract Power, Light and Traction Co. has purchased 2,000 tons of steel rails, which have been delivered at the city dock. These rails are being used to relay the tracks of the Hamilton and Dundas Ry., and the Hamilton Radial Ry. The company has also ordered rails for use in relaying the Hamilton Street Ry.

London Street Ry.—The company is replacing the trolley wire on about five miles of its line. If any new rail is purchased at all it will be 70-lb. steel, American Society's Standard specification, and will be used to replace worn T rail. The T rail so taken up will be used for car house and yard tracks and guard rail. The Ontario Railway and Municipal Board has held an investigation into the condition of the railway. (Jan., pg. 35.)

Lumsden, Sask.—A local company is being formed for the purpose of constructing an electric railway from Lumsden to a point near Big Arm, tp. 24, Sask.

Moncton, N.B.—A proposition has been laid before the City Council by Boston men for the construction of an electric railway there. Dr. Spragge, of Moncton, is acting for the Boston people in the negotiations. The matter was referred to a committee for consideration and report. There was formerly a street railway in the town, but it did not pay, and after being out of operation for some time the rolling stock was sold, and the tracks taken up in 1902.

Montreal Street Ry.—The improvements at the company's general offices, which have been in progress for some time past, have been completed. The rooms of the staff have been rearranged, and provision has been made for a large waiting room for the use of the public. An order has been placed for a 1,000 k.w. Westinghouse railway generator and three 500 k.w. Westinghouse motor general sets for the power plant; as well as motor and air-brake equipment for new cars.

At a meeting of the Montreal Board of Trade recently, the council was asked to take into consideration the question of placing electric cars underground or elevating them, on account of the increasing demands for new lines, and the limited number of streets available for surface traction. (Aug., pg. 477.)

Portage la Prairie, Man.—An application has been made to the Town Council, by C. Heath, on behalf of a Winnipeg company, for a franchise for a street railway. The suggestion is that it is intended to establish lines in the town, and to run a line to Winnipeg.

Quebec Ry., Light and Power Co.—Good progress is being made with the additional power development which the company is constructing about half a mile above Montmorency Falls, to provide for the seasons of low water. The dam, which will be 84 ft. high, is 67 ft. 4 ins. wide at the base and 12 ft. wide at the crest, and will hold back 52,000,000 cubic feet of water. The company has ordered the plant, which will consist of a 1,500 k.w. alternating current generator, driven by a 2,225 h.p. turbine water wheel, and is expected to be in operation by the end of the year.

Quebec and Saguenay Ry.—A survey party under the charge of J. C. Guay is engaged locating a route from St. Joachim to Cap Tourment and Murray Bay, about 58 miles. A. Girard, one of the directors of the company, stated that a syndicate of 26 Quebec, Montreal and Toronto capitalists had assumed full responsibility for the cost of the line and its equipment. The line would make a connection with the Montmorency Division of the Quebec Ry., Light and Power Co.'s line at St. Joachim, and from Cap Tourment would course along the edge of the cliff until it found its level on the low lands. The line will follow the north shore of the St. Lawrence River at just a few feet above high water mark. It will practically be a level road, with the minimum of curvature possible.

Application will be made next session of the Quebec Legislature for an act giving power among other things to change the composition of the directorate, increase the capital stock, and fix the amount of the bond issue. (Jan., pg. 37.)

Southwestern Traction Co.—Owing to a delay in the receipt of the special track work the connection with the St. Thomas street railway has not been made. President Rumball informed the St. Thomas City Council recently that the delay was owing to the rush of work at the mills. The company's line has been in operation from London to a point north of St. Thomas since early in June, and to Aug. 31 carried 54,205 passengers. The cars are run on an hourly schedule, and make the run to St. Thomas, via Lambeth, 20 miles in 55 minutes—a running speed of from 30 to 35 miles an hour. The track is in good condition.

There are some difficulties in connection with the line under construction from St. Thomas to Port Stanley, and recently an injunction was obtained restraining the company from proceeding with the construction until the hearing of an action respecting the old McCorkell property. The company expects to get the line finished this fall. (Sept., pg. 549.)

Toronto Ry.—Car earnings for Sept., $308,113.75, against $282,572.52 for Sept., 1905.

Toronto and York Radial Ry.—The Ontario Railway and Municipal Board has approved the plan of the deviation of the line in Newmarket, Ont. The line is being moved from the main street and carried through the town a little to the west. The new line will pass through the middle of the market, and will avoid the 6% gradient on the main street. By the new line the grade will be only 2% at the north of the town. Where the road runs northeast and goes through the manufacturing district, it will be carried over the G.T.R. tracks by an overhead bridge. (July, pg. 413.)

Westminster and Chilliwack Ry.—The Dominion Parliament will be asked next session for an act incorporating a company with this title to construct a railway, to be operated by steam, electricity, gasoline or any other kind of motive power, from New Westminster to the town of Chilliwack, with power to extend from New Westminster to Elbourne, B.C. McPhillips, Tiffin & Laursen, Vancouver, B.C., are solicitors for the applicants, who are understood to be officials of the B.C. Electric Ry. Co.

Electric Ry. Finance, Meetings, Etc.

Cape Breton Electric Co.—The minority shareholders of the Cape Breton Electric Co., which owns the Cape Breton Electric Ry., a half interest in the Sydney and Glace Bay Ry., and other properties in Sydney, have decided to have an independent audit of the company's affairs made. The company is one of those managed by Stone and Webster, Boston, Mass., and the smaller shareholders state that they are not given the information they feel entitled to have put before them.

Grand Valley Ry.—At the annual meeting at Brantford, Sept. 29, the retiring directors were re-elected. The receipts were reported to show a satisfactory increase, and the directors look forward to better returns, now that the freight and express business are being added.

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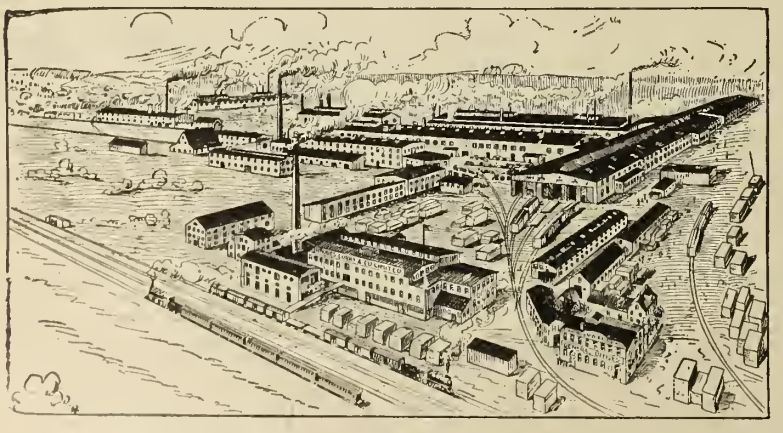

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Summer Schedules in effect June 24th, 1906.

Abel I. Culver, 2nd Vice-President. **J. W. Burdick,** Pass. Traffic Man.

A. A. Heard,
Gen. Passenger Agent, - - ALBANY, N.Y.

Hamilton, Grimsby and Beamsville Electric Ry.—The minority shareholders have decided to appeal to the Ontario Railway and Municipal Board asking for an investigation into the circumstances attending the transfer of the majority stock to the G.T.R., and subsequently to the Hamilton Cataract, Power, Light and Traction Co. No dividends have been paid since before the first transfer was made.

London Street Ry.—The Mayor has made a proposition to the City Council with a view of having the purchase of the street railway by the city fully discussed. H. A. Everrett, Cleveland, Ohio, President of the L. S. Ry., was in London, Oct 17, and when spoken to said if the city would make a business proposition, it would be considered; the city could not buy the line at par. The company's franchise has 19 years to run; it has a capital of $500,000 and a bond issue of $500,000 outstanding.

Montreal Street Ry.—A special meeting will be held at the close of the annual meeting, for the purpose of authorizing the issue of $2,000,000 of new stock, at a premium of 75%. It has also been decided that at the opening of the books, Nov. 8, the par value of the shares will be $100, instead of $50, as at present. This means that a shareholder having two shares of the par value of $50 will have one share of the par value of $100, upon the opening of the books on the date mentioned.

Nelson, B.C., Tramway.—The receipts for the nine months ended Sept. 30, were $5,165.90, against $4,340.15 for the same period in 1905. The line is being operated by the city council under an agreement.

Toronto Ry.—Cars are being run along the Dupont St. extension west of Bathurst St., and lines are under construction along Lake St. and Richmond St., whilst the track on Queen St. west is being relaid. (Sept., pg. 549).

Electric Railway Notes.

The Ontario Railway and Municipal Board has approved of the appointment by the Toronto Ry. of W. H. Nix and T. Hogg as examiners of motormen.

J. S. Clarke, of Galt, Ont., has instituted actions against certain officials of the Grand Valley Ry. for $20,000 damages for alleged false arrest and malicious prosecution.

Further writs have been issued by the Toronto City Council against the Toronto Ry., to recover penalties amounting to $100 a day for non-observance of various terms of the contract.

R. E. Kizer has been appointed General Manager Chatham, Wallaceburg and Lake Erie Ry., succeeding W. N. Warburton. H. M. Clark has been appointed Superintendent of the line.

The Toronto Ry. has applied to the Ontario Railway and Municipal Board to approve of the brakes and fenders in use on the line, and the board is about to make an investigation as to the appliances.

S. W. Mower, of the Southwestern Traction Co., London, Ont., was elected Secretary and Treasurer of the Engineering Association, affiliated with the American Street and Interurban Railroad Association, at the annual meeting held at Columbus, Ohio, Oct. 18.

Robert W. Hunt & Co., The Rookery, Chicago, have been appointed consulting, designing, and constructing engineers for the new municipal electric lighting plant for the City of Milwaukee by the City Engineer. This appointment has been unanimously confirmed by the City Council, the site has been purchased, and work will immediately start upon plans and specifications. Estimated cost, $700,000.

Quebec Railway Light and Power Co.

The Directors' report for the year ended June 30, presented at the annual meeting at Quebec, Sept. 11, stated that the total net profits obtained from all sources, after providing for all fixed charges and dividend on preferred stock, were $86,994.12, which, added to the balance of profit and loss account carried from the previous year, increases the amount at the credit of that account to $298,623.97. The construction of the dam on the Montmorency River has made satisfactory progress towards completion, considering the magnitude of the work and the importance of obtaining reliable work throughout its construction. There is every reason to expect that the dam and power house equipped with the necessary machinery and plant for transmitting electrical current to Quebec City, will be completed in time to afford the additional power desired for the winter's work. Considerable sums have been expended during the year on the purchase of passenger and freight cars and on improvements generally on the company's works and plant. The addition of new cars and the improvements obtained during the year, have helped materially to the success of the business in the last few months, and the directors are satisfied that these expenditures will yield good returns in the earnings.

The report of E. A. Evans, General Manager, follows:

CITADEL DIVISION.—The annual increase of passengers has been maintained, but with an increased mileage of nearly 63,500 miles over the previous year; the sweeper mileage also shows an increase of nearly 50%. Owing to the increased prosperity of the city, the cost of operating has also considerably advanced, and as a consequence, the operating expenses have had to be increased by the payment of higher wages for labor and also for material. During the year, six open cars have been added to the rolling stock, which, in addition to the electrical equipment, has all been kept in the highest state of efficiency.

THE MONTMORENCY DIVISION has shown very considerable progress, both in number of passengers carried and in freight. No accident involving personal injury occurred. The pilgrimage traffic to Ste. Anne de Beaupré has also shown advancement. The Kent House, park and elevator have made a marked advance over the previous year, clearly showing that the attraction of the rustic theatre and the zoo has been fully appreciated by the public, and proving that were more amusement provided in this park, a further considerable increase of travel and receipts could be expected. Ten flat cars, five box cars and three passenger coaches of the 400 class have been added to the rolling stock, besides an order for 25 more freight cars not yet delivered; additional sidings and stations have also been built, to further facilitate the freight and passenger business. All cars, rolling stock and stations have been kept in a thorough state of efficiency and repair.

POWER DIVISION.—Very considerable improvements have been made, the roof of the sub-station in Quebec has been altered and changed so as to eliminate as far as possible all risk of fire, especially from a conflagration from outside sources; the roof of the power station at Montmorency has been entirely reconstructed, all woodwork removed and replaced by a steel and concrete roof, thus rendering it impervious to fire; new chute cases have been put into nos. 1, 2 and 5 waterwheels, and the gates and all the interior parts of each wheel thoroughly repaired It is pleasing to note that the runners in all wheels show no signs as yet of depreciation from abrasion or wear. General repairs have also been made to head gates, dam, pipe, transmission and distribution lines, and the whole property is in first-class condition.

NEW DAM AT MONTMORENCY.—The progress of the work of constructing this important adjunct to the business has been most satisfactory, the mild winter and favorable summer having permitted operations to be continued without interruption. The head gate portion of the work is practically finished, including the 12' O" wastepipe, and the O" feeder pipe; the head gates, rods and machinery for operating the same are all in position, and all that is required to complete this portion of the work is the gate house building. The contract for the 1,500 k.w. generator and 2,200 h.p. waterwheel has been let, and delivery is expected early in December; and it is fully expected that by the end of Dec. nearly all the work will be completed and ready for operation.

ASSETS.

Road and equipment, real estate, buildings, etc., including Kent House	$5,634,275.44
Cash on hand and in bank	21,478.83
Power division—operating, including accounts due, stores for operating equipment, etc	42,104.18
Kent House—operating account	10,972.55
Citadel division—operating account, represented by stores on hand	14,433.02
Montmorency division—operating account, stores on hand, cash assets, etc	35,234.89
Accounts receivable	9,627.72
	$5,768,126.63

LIABILITIES.

Capital stock		$2,500,000.00
Bonds		2,500,000.00
Preferred capital stock	$ 500,000.00	
Less in treasury	171,000.00	
		329,000.00
Bills payable		16,466.28
Accrued interest account		23,862.12
Accounts payable and other liabilities		100,174.26
Profit and loss account		298,623.97
		$5,768,126.63

PROFIT AND LOSS ACCOUNT.

Balance at credit of profit and loss account, June 30, 1905		$ 211,629.85
Net earnings for year 1905-1906	$ 229,753.67	
Less interest on bonds, dividends on preferred stock and interest paid and accrued	142,759.55	
		86,994.12
Balance at credit of profit and loss account, June 30, 1906		$ 298,623.97

Following are the officers and directors for the current year: President, A. Thomson; Vice-President, F. Ross; other directors: W. Shaw, E. W. Methot, G. H. Thomson, F. W. Ross, J. Sharples, W. Hanson, R. Forget. The latter was first elected to the board some months ago in place of S. N. Parent, K.C., on his resignation.

Mrs. H. B. Spencer, wife of the C.P.R. Superintendent at Ottawa, Ont., died there Oct. 25 after a protracted illness.

Western reports continue to state that negotiations have been practically completed for the leasing to a private company for a term of years of all the lake front elevators of the C.P.R. at Fort William, Ont.

A judgment of the Ontario Divisional Court is to the effect that where the United States customs officials demand a head tax at the frontier the transportation company carrying the passenger is responsible for its payment.

The Hudson's Bay Co'.s str. Stork arrived at St. Johns Nfld., Oct. 4, from Hudson Bay and Labrador ports. The Stork has since returned to Ungava, and will later on take her annual trip to London, Eng., with the H.B. Co.'s cargo of furs.

The sealing str. Adventure, which carried the Dominion Government officials and N. W.M. Police to Hudson Bay and other points in the Arctic Ocean, was expected to have returned to St. John, N.B., early in Oct., and news of her whereabouts is being waited with some anxiety.

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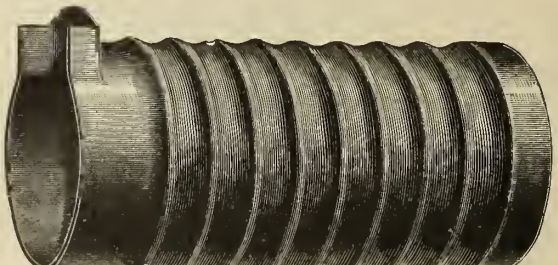

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Royal Commission on Grain Matters.

The Dominion Government Commission which is investigating questions affecting the marketing of grain has held sittings in Manitoba, Fort William, Toronto, and Montreal, and has inspected the facilities for handling grain at various ports on the Georgian Bay. Grain growers, shippers, millers and exporters have given evidence before it, and the elevator owners' views have also been presented. At the sittings in Toronto, A. A. Wright, who is a vessel owner, and has always taken a strong position upon questions affecting the marine interests, gave evidence. Following is a summary of the matters dealt with in his evidence: The delays in loading at Fort William and Port Arthur, and the necessity for a clearing house system there, which should be established by legislation, defining the duties of the railways in delivering freight in their possession in the elevators under a penalty.

The grain inspection which stops loading boats when it becomes dark, often delays boats 12 hours. The shortage question.—The certificates of weight issued by the Inspector, Mr. Wright claims, are the cause of considerable loss to vessels because they are pointed to by the loading elevator as proof of their delivery to the vessel, while they are ignored by the unloading elevators, which settle on their own weight. His theory was to do away with any object on the part of the shipping or receiving elevators to make shortages by compelling them to furnish annual statements showing amount of grain on hand, at a certain date each year, amount received during the year, amount shipped and amount on hand. That these statements should be furnished to the Government by all elevators handling grain in transit so that the overages and shortages could be adjusted between the elevators at the end of the year, and vessels be paid freight on their bill of lading less any grain actually damaged by the boat. He pointed out that the Government should either enforce recognition of their certificate of weight against the receiving elevator or abolish it, as if that certificate is proof that the grain went into the boat, and it is proved that all the grain that went into the boat went into the receiving elevator, then certainly that certificate should be evidence that the receiving elevator received the quantity with which the boat is charged. He had not heard any good reason why a vessel owner should pay for a difference in weights between loading and receiving elevators, any more than the man on the street. He would also forbid elevators handling grain as they do practically in transit, from buying or selling grain or dealing with it in any way. He also dealt with the alleged lack of sufficient railway facilities at Georgian Bay ports in the way of cars, engines and elevator storage capacity. The excessive charge for trimming grain into vessels at Fort William and Port Arthur was another point. On an ordinary modern vessel this charge is 70c. per 1,000 bush., and has to be paid whether the grain is trimmed into the boat or not. On one occasion at least, his company's steamer only had two men working on her and left several thousand bushels short of her full cargo, because men were scarce, but no abatement of the charge was made. He was also informed that vessels which carry 107,000 bush., on upper lake draft, have to pay trimming when they are taking a canal load from 70,000 to 90,000 bush., although in the latter case there is no necessity for a trimmer to go on board.

Grain Elevator Notes.

The Western Elevator Co. is erecting a 30,000 bush. elevator on the Canadian Northern Ry. at Melfort, Sask.

The Dominion Elevator Co. and the Weyburn Elevator and Lumber Co. have completed the construction of elevators at Weyburn, Man.

The Anchor Cereal Co., an incorporated company trading in Manitoba, is applying to have its name changed to the Anchor Elevator and Warehousing Co.

The Western Canadian Flour Mill Co.'s elevator at North Battleford, Sask., has been completed, and operations started under the charge of J. R. C. Michel.

The grain elevator at Grand Coulee, Sask., owned by J. Glenn, Indian Head, Sask., toppled over Oct. 7, and over 40,000 bushels of grain were thrown out on to the C.P.R. tracks.

The receipts at the terminal elevators at Port Arthur and Fort William, Ont., for Sept. were 4,104,776 bush., and the shipments for the same period were 3,039,370 bush. The receipts were 750,000 bush. more than for Sept., 1905. On Oct. 1, the quantity of grain in storage at these elevators was 1,572,780 bush.

A United States company, of which the principal men are Senator Jensen, of Nebraska, and his son, J. P. Jensen, is erecting a number of elevators at various points in Saskatchewan. The elevators at Wadena, Humboldt, Langham and Warman are completed, and those at Bruno, Dalmeny and Fielding were expected to be ready by the end of Oct.

Following are the officers and directors of the recently organized Saskatchewan Elevator Co.: President, Senator P. Jensen; Vice-President, A. D. McRae; other directors: A. D. and A. R. Davidson. The company has secured elevators at Warman, Bruno, Wadena, Dalmeny, Langham, Fielding and Humboldt on the Canadian Northern Ry., and proposes to build an additional 50 elevators next year.

John Meldrum Grain and Produce Co. has been incorporated under the Dominion Companies' Acts, with a capital of $20,000, and offices at Montreal, to acquire the grain business now carried on at Montreal by J. E. Belair, to extend the same, and to construct, lease or otherwise acquire elevators to be used in connection with the business. The provisional directors are: J. E. and Jos. Belair, G. Britain, Montreal; J. Meldrum, F. S. Patterson, Westmount, Que.

MARINE DEPARTMENT

The Princess Wreck on Lake Winnipeg.

Commander O. G. V. Spain, Dominion Wreck Commissioner, has rendered the following judgment, which was concurred in by Capt. D. S. Daly, who sat with him as assessor: "The S.S. Princess foundered on Aug. 26, 1906, in Lake Winnipeg, six lives being lost—the master, two stewardesses, two fishermen and one deckhand. The Princess was a wooden ship, built in Winnipeg in 1881; length, 146.5 ft.; breadth, 25 ft.; depth of hold, 9.6 ft. From the evidence adduced the S.S. Princess was staunch and seaworthy. Taking into consideration the work in which she was employed, the ship was, according to the law, fully manned; she was not, however, provided with a second engineer, although there is nothing in the steamboat inspection act which renders it imperative that such an officer should be carried on a vessel of this description, so long as the running time of the ship was not greater than the chief engineer himself could remain on watch. Still, in the opinion of the court, a second engineer would have been of benefit.

"The officers who were employed on board held proper certificates, but owing to the fact that Capt. Hawes, commanding the vessel, lost his life, it is very difficult for the court to determine whether the navigation was satisfactory or otherwise. It is apparent, however, from the evidence that the gale was increasing enormously during the whole night of Aug. 25, and the court is surprised that the officer in command of the vessel did not make for some place of shelter; the fact of his not doing so, with the reputation Capt. Hawes had of being a careful and skilful seaman, conclusively shows that he himself must have considered the vessel under his command thoroughly able to weather the storm. It is possible, that shortly before the foundering of the vessel, she did strike an obstruction of some sort, which caused her to leak badly, but there is no evidence to this effect, and the court considers the S.S. Princess foundered through stress of weather. She was properly provided with life-saving apparatus in the way of lifeboats and lifepreservers, and the court is of the opinion that if any discipline whatever had been maintained there is no valid reason why lives should have been lost.

"The court views with grave disapprobation the conduct of Jos. A. Joyce, the mate, who holds a certificate of competency as mate of a passenger steamer in inland waters; this officer manifestly made no genuine efforts for the safety of the passengers and crew under his charge, but his exertions are very obvious when it became a matter of looking after his own interest, and the court considers that his action in being one of the first to leave the sinking vessel is in a great measure responsible for the loss of the lives of the two women, at any rate, and is of opinion that it would be a menace to the lives of crews and passengers for such an officer to be retained in a position of responsibility. The certificate of competency, no. 4,180, as mate of a passenger steamer on the inland waters, held by him, is hereby cancelled."

The Merchants Service Guild has been informed by the British Admiralty that the new system of training of officers for the Royal Naval Reserve, and the new regulations as to the entry of seamen and stokers in the Royal Naval Reserve are now in force. In future preference will be given as regards candidates for direct entry as sub-lieutenants to those possessed of extra-master's certificates and who have passed the Board of Trade examination in steam.

The ore carrying steamship Sir Thomas Shaughnessy has been placed in commission. The steamer, which is owned by the National Steamship Co., Cleveland, Ohio, will carry 8,000 tons on a draft of 19 ft., her gross tonnage being 6,276 tons. Her main dimensions are: 500 ft. long over all; 480 ft. length of keel; 52 ft. beam, and 30 ft. depth. She has an engine with cylinders 22½, 36 and 60 in. diameter, by 42 in. stroke, and steam is supplied by two cylindrical boilers, size 13 ft. 9 in. by 11 ft. 6 in., carrying 180 lbs. pressure.

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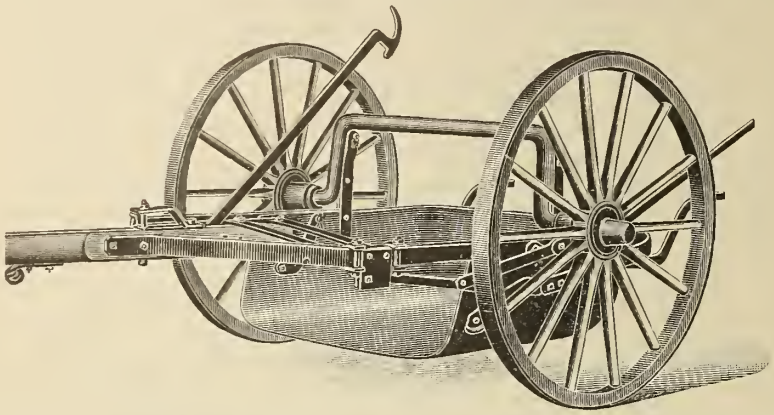

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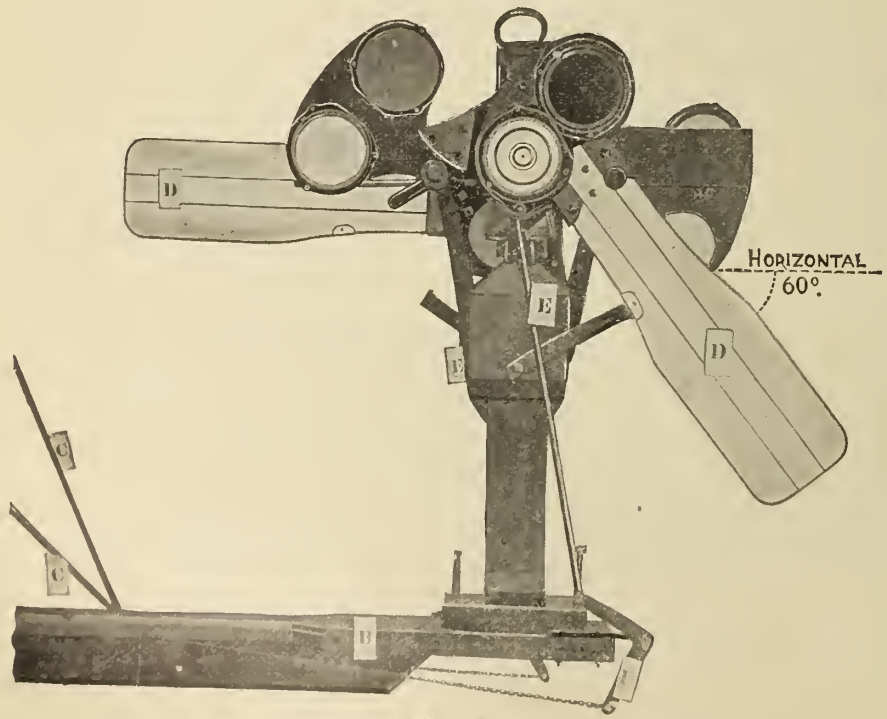

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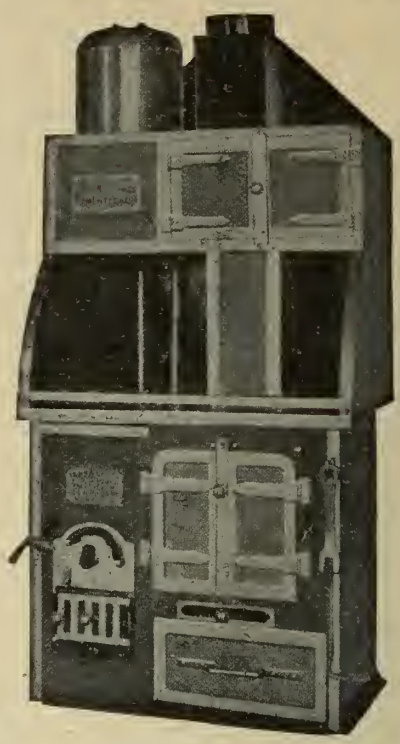

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LIST OF STEAM VESSELS REGISTERED IN CANADA FROM SEPT. 15 TO OCT. 15.

Name.	No.	Where and When Built.	Engines, etc.	Length	B'dth.	Depth.	Gross tons.	Reg. tons.	Home Port.	Owners.
Blanche.....	122,223	St. Remi du Lac, Que., 1903	Screw ¾ N.H.P.....	30.0	8.2	2.3	6	4	Montreal, Que.....	J. B. Rheault, St. Remi du Lac, Que.
Botrel.....	122,224	Three Rivers, Que., 1903...	" 2 "	50.6	9.7	2.9	18	12	" "	J. A. Godin, Three Rivers, Que.
Cuba.....	116,951	Buffalo, N.Y., 1872.....	" 125 "	238.2	35.6	12.6	1708	1030	Sarnia, Ont.....	Northern Nav. Co., Collingwood, Ont.
Edith C.....	121,908	Clark's Harbor, N.S., 1906.	" 15 "	39.0	13.4	6.3	16	15	Barrington, N.S.....	E. Wilcox, Grand Manan, N.B.
Estelle.....	116,387	Watkins, N.Y., 1874.....	" 6 "	66.0	13.0	7.0	51	25	Port Arthur, Ont....	Great Lakes Dredging Co., Pt. Arthur.
Flutterby.....	121,978	Victoria, B.C., 1906.....	" 2 "	20.0	5.4	3.0	2	1	Victoria, B.C.....	A. E. C. Lane, Duncans, B.C.
F. C. Barnes..	116,386	Manistee, Mich., 1892.....	" 10 "	66.0	16.0	8.0	63	43	Port Arthur, Ont....	Tbunder Bay Cont. Co., Port Arthur.
Goliath.....	117,160	Victoria, B.C., 1887.....	Paddle 9 "	100.0	28.0	4.5	312	197	New Westminster,B.C	W. R. Gilley, New Westminster, B.C.
Leila.....	121,977	Vancouver, B.C., 1906.....	Screw 1½ "	36.0	9.0	3.6	10	5	Victoria, B.C.....	G. L. Courtney, Victoria, B.C.
Lolita.....	121,836	Boston, Mass., 1897.....	" 4 "	46.1	10.0	4.8	14	10	St. John, N.B.....	S. P. Gerow, St. John, N.B.
Lotus.....	117,175	Detroit, Mich., 1906.....	" 11 "	44.4	10.6	5.7	26	18	Windsor, N.S.....	J. H. Wilmott, Beaumaris, Ont.
Meg.....	121,939	Dartmouth, N.S., 1906....	" 3 "	17.5	5.8	3.0	2	1	Halifax, N.S.....	F. G. Zwicker, Halifax, N.S.
Petit St.Laur't	122,225	Grand Mere, Que., 1904....	" 1 "	38.9	8.7	3.1	10	7	Montreal, Que.....	J. A. Petit, Grand Mere, Que.
Takara Maru..	121,770	Osaka, Japan, 1905.....	" 12 "	53.0	12.0	6.0	30	21	Vancouver, B.C.....	Awaya, Ikeda & Co., Vancouver, B.C.
Thelma.....	122,216	Toronto, Ont., 1906.....	" ½ "	24.7	6.2	2.6	3	2	Toronto, Ont.....	S. Halliday, Bedford, Ont.
Victor	121,769	Vancouver, B.C., 1906.....	" 3 "	34.0	9.7	4.4	14	10	Vancouver, B.C.....	A. R. Bittancourt, Ganges, B.C.
Wenonah.....	122,215	Hamilton, Ont., 1906.....	" 3 "	31.0	6.5	2.5	4	3	Toronto, Ont.....	S. W. Howard, Toronto, Ont.
Yvon.....	122,226	Sorel, Que., 1906.....	" 10 "	58.0	17.5	8.4	51	26	Montreal, Que.....	Sincennes, McNaughten Line, Montreal.

LIST OF SAILING VESSELS AND BARGES REGISTERED IN CANADA FROM SEPT. 15 TO OCT. 15.

Name.	No.	Where and When Built.	Rig.	Length	B'dth.	Depth.	Gross tons.	Reg. tons.	Home Port.	Owners.
A. B. C. No. 1..	117,163	New Westminster, B.C., '06	Scow	65.0	24.0	2.8	90	90	N.Westminster,B.C	Anglo-British Col. Pack. Co. Vancouver, B.C.
Bretwalda.....	121,938	Jeddore, N.S., 1906.....	Schr.	62.0	18.7	7.0	43	43	Halifax, N.S.....	A. Webber, Jeddore, N.S.
City D'ge, no. 2.	122,214	Toronto, Ont., 1906.....	Dred.	90.5	30.5	5.2	279	234	Toronto, Ont.....	City of Toronto.
Clarica & Myrtle	122,050	Grand Manan, N.B., 1906..	Sloop	36.0	13.2	6.2	20	20	St. Andrews, N.B..	W. J. Morse, Grand Manan, N.B.
Dolly Grey.....	122,002	Lunenburg, N.S., 1906.....	Schr.	41.6	11.2	5.4	13	13	Lunenburg, N.S...	A. Young, Lunenburg, Ont.
Emmie G.....	121,909	Clark's Harbor, N.S., 1906..	Sloop	31.0	11.0	6.0	10	10	Barrington, N.S...	V. Nickerson, Cape Island, N.S.
Evangeline.....	122,115	Ingonish, N.S., 1906.....	"	33.6	11.9	5.3	10	10	Sydney, N.S.....	J. G. Hines, et al., Ingonish, N.S.
Flora M.....	117,163	Hantsport, N.S., 1906.....	Schr.	97.0	27.0	9.5	178	152	Windsor, N.S.....	T. A. Marsters, Hantsport, N.S.
Grace Darling...	122,003	Mahone Bay, N.S., 1906...	"	66.6	20.6	8.0	64	64	Lunenburg, N.S...	A. Lantz, Mahone Bay, N.S.
Island City.....	103,805	East Boston, Mass., 1871..	"	134.5	28.0	15.2	425	397	Pictou, N.S.....	W. H. Edgett, Moncton, N.B.
Madeline Fr. L..	121,896	Shelburne, N.S., 1906.....	Sloop	37.0	13.0	5.7	13	13	Sbelburne, N.S....	C. L. Guptill, Grand Harbor, N.B.
No. 5.....	122,227	Toronto, Ont., 1904.....	Dred.	90.2	30.0	7.2	303	271	Montreal, Que.....	Randolph Macdonald, Toronto, Ont.
No. 6.....	122,228	Coteau du Lac, Que., 1902.	"	71.1	30.1	4.9	188	171	" " ...	" " " "
Perry C.....	116,906	Port Greville, N.S., 1906....	Schr.	134.5	32.1	10.8	332	287	Parrsboro, N.S....	J. W. Cochrane, Fox River, N.S.
Waldo R.....	122,049	West Isles, N.B., 1906.....	"	51.0	17.2	7.0	47	47	St. Andrews, N.B..	W. Richardson, West Isles, N.B.

Lake Freight Matters.

Our Winnipeg correspondent wrote Oct. 17: The fall movement of the new crop over the lakes is now in full swing, and while the movement has not been up to expectations on account of the numerous accidents of various kinds on the railways between Winnipeg and the lakes, stocks are now beginning to show an increase over the same period of last year, and the demand for lake tonnage is very active, especially to Georgian Bay ports, while the shipments via Buffalo have been very light as compared with last year.

The cause of the lack of Buffalo business is no doubt the fact that the eastern railways have so far been able to keep the eastern terminal elevators clear, the car supply being first-rate up to date.

Wheat rates are now firm at 3c. to both Canadian ports and Buffalo, and no doubt will reach the 4c. basis before the end of the month, as the demand for tonnage becomes stronger and despatch at eastern elevators slower, and early in November the lake rate will no doubt go to the all-rail basis.

Coal is still moving in large quantities to the Canadian head of Lake Superior, and a larger percentage than ever before is moving in Canadian boats, from the fact that U.S. boats are very busy on their own side of the line, and also the fact that a number of them prefer to run west light, the saving in time more than offsetting any earnings that can be made in the coal trade.

Capt. Ross, a member of the United States Lighthouse Board, in company with J. F. Fraser, Superintendent of the Canadian lighting system, made an inspection of the St. Lawrence lights and buoys Sept. 28. On returning Capt. Ross said the completeness of the lighting system was very satisfactory, particularly the acetylene buoys. The acetylene system differed from that in use in the U.S.

Marine Notes from the Twin Ports.

Our Port Arthur, Ont., correspondent writes as follows on Oct. 1: Following are the shipments of grain out of Fort William and Port Arthur for the season of 1906 up to Sept. 30:

Wheat	21,072,290	bush
Oats	3,492,663	"
Barley	290,706	"
Flax	180,945	"
Total shipments	25,036,604	"
Carried in foreign bottoms	3,545,905	"

Receipts of grain are now quite free, amounting to about 400,000 bush. daily. Shipments are rather slow, but it is expected that by the 5th inst. the regular fall rush will be on, as a large number of vessels are under charter to load after that date. Notwithstanding the activity in ore movement on the U.S. side of the lakes, several U.S. vessels have loaded here this fall. Over half a million bushels of the new crop has gone out in foreign bottoms. About the same quantity has gone to U.S. ports in Canadian bottoms. The most noticeable feature of the new crop is the amount of high grade wheat. Already large quantities of no. 1 hard have been shipped, while whole cargoes of no. 1 northern are quite common.

It is expected that about twenty-five millions of the new crop will be moved out by lake this fall; making the total grain movement by lake out of these ports for this season fifty millions.

Atlantic and Pacific Ocean Marine.

The S.S. Halifax City, the third of the name, has been put on the Furness Line service between Halifax, N.S., and London, Eng.

Capt. J. N. Cotter, for ten years past in command of the Head Line S.S. Innishowen Head, died at Montreal, Sept. 26, of congestion of the lungs, contracted on the voyage from Ireland.

The Quebec Steamship Co.'s S.S. Bermudian ran aground on the mud flats at South Brooklyn, New York harbor, Oct. 5, and was towed off on the following day without injury.

Capt. Leslie, of Kingston, Ont., says there is little doubt that the Allan Line S.S. Bavarian, which has been on Wye Rocks, Que., since Nov., 1905, will be successfully floated. He expects to get her off and into Quebec early in Nov.

The trading profits for the year ended June 30, of the Manchester Liners, trading from Manchester, Eng., to Canada and elsewhere, were £38,179, against £15,514 in 1904-05, and a loss of £1,340 in 1902-03. After meeting debenture interest and putting aside £25,000 as a depreciation fund, there is a balance of £1,430 to be carried forward.

The Canadian Government has awarded a silver cup to Capt. W. Caddell, of the Glasgow barque Fifeshire, for the rescue of the crew of the Nova Scotian schooner Carrie Easter, abandoned in the North Atlantic, Mar. 18; and a gold watch to chief officer S. Freeman of the U.S. S.S. Maine, for the rescue of the crew of the Nova Scotian schooner Kipling in the Atlantic ocean.

The schedule of sailings of the mail steamers for the winter months has been announced. The Allan Line steamers Victorian and Virginian will land mails and passengers at Halifax, and the C.P.R. steamers Empress of Britain and Empress of Ireland will make St. John their terminal port. The Virginian will commence the winter sailings from Liverpool, Eng., for Halifax, Nov. 9, and the Empress of Ireland will follow on Nov. 16.

Owing to the low water in the St. Lawrence channel at Montreal the Allan Line steamers Victorian and Virginian, commencing Sept. 28, sailed from that port only partially laden. The loading was completed and the passengers embarked at Quebec. As these steamers alternate with the C.P.R. Empress of Britain and Empress of Ireland in carrying the mails,

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the principal passenger business between Canada and Great Britain is now being transacted at Quebec.

The Howth Head is the name of the latest vessel added to the Head Line trading between Belfast and Dublin, Ireland, and Canadian and Mexican Gulf ports. The Howth Head was launched at Belfast Oct. 5, her dimensions being: length, 394 ft. 6 in.; breadth, 48 ft. 2 in.; depth, 31 ft. 6 in. She has a carrying capacity of about 7,600 tons. The Howth Head will be put on the Canadian route with the opening of navigation to Montreal in 1907.

The question of the establishment of another line of cargo steamers between Vancouver and Australian ports is under consideration by A. Weir & Co., of Glasgow, Scotland, and London, Eng., who have at present a number of steamers engaged in the Pacific coast trade. Pacific coast papers say that the mail steamers, despite large subsidies, have certainly been a failure, and without a subsidy it is questioned if a cargo boat could live, much less earn money.

The British steel S.S. Twickenham from Java to Vancouver, B.C., stranded at San Juan Island in Aug., and was subsequently floated and towed to Esquimalt, B.C. The salvage claim is $25,000; there are claims for loss of cargo, and it is expected that repairs will cost about $25,000. The vessel was insured against total loss only, so that the cost of repairs, etc., will fall on the owners. The cargo was insured for about £65,000, of which about 1,200 tons of sugar is a total loss.

The White Star Line str. Adriatic was launched at Belfast, Ireland, and the second of the new Cunard steamers—Mauretania—was launched at Newcastle-on-Tyne, England, Sept. 20. The Adriatic is 710 ft. long, 75 ft. beam, and 59½ ft. deep, and will be ready for sea in May, 1907. She has a capacity of 25,000 tons, but will not be a fast steamer. The Mauretania is 770 ft. long, 88 ft. beam, and will be driven with turbine engines of 70,000 i.h.p. at about 25 knots an hour.

The C.P.R. intermediate steamers after leaving Liverpool for Canada, call at Bangor, on the south shore of Belfast Lough. Passengers for the steamers are taken from Belfast by the Belfast and County Down Ry. to Bangor, about 12 miles, and from the wharf by the B. and C.D. Ry. str. Slieve Bearnagh to the trans-Atlantic steamer. It is reported that there is a possibility of the C.P.R. Empress steamers making Fishguard, near Milford Haven, Wales, a port of call, if not the terminal port, instead of Liverpool. Fishguard is a new port constructed by the Great Western Ry., and with which the Midland Ry. is arranging to make connection.

Sir T. G. Shaughnessy, on his recent visit to Victoria, B.C., stated that the Empress of China, Empress of India and Empress of Japan will stop as usual at Victoria. It was recently stated that the steamers would cut out the call there in order to expedite the trip from Vancouver with the China mail under the new contract. The new contract, he said, was for two years only, instead of the usual period of five years, and it was therefore imperative that the service given should be such that when the contract was again under review the C.P.R. could not be passed over. He hoped some day to see on the waters of the Pacific steamers nearly approaching the Empress of Britain.

F. B. Girdlestone, Manager of the dock system of Bristol, Eng., was in Quebec Sept. 30, and during the early part of October, for the purpose of promoting the establishment of a line of steamers between these ports. He says that the harbor equipment at both Montreal and Quebec is utterly inadequate for the trade done. The wharf accommodation at Montreal is about adequate for present requirements, and should be increased at once to keep pace with the expansion of the trade. The Louise dock at Quebec is not large enough for present requirements, let alone any expansion in the future. The docks are devoid of equipment for handling cargoes. The dock accommodation at Bristol has cost the citizens about $15,000,000, and another dock capable of giving accommodation to the largest vessels afloat, is under construction. The cost of this dock and its equipment will bring the total value of Bristol's dock property to about $30,000,000.

A contract has been entered into between the Dominion Government and Capt. T. H. Worsnop for a monthly steamship service between Vancouver and Victoria, B.C., and the Mexican ports of Mazatlan, Manzanillo, Acapulco, and Salina Cruz. The contract is for two years from the first sailing of the steamers. The steamers must sail under the British flag, and must have a carrying capacity of not less than 3,500 tons; class A1 at Lloyds, and have accommodation for 20 first-class and 100 'tween deck passengers. The service is to begin within six months of Sept. 17, 1906; twelve round voyages must be performed, the average rate of speed to be not less than 10 knots an hour. The freight rates are to be subject to the control of the Department of Marine. The contract also provides that there shall be no discrimination directly or indirectly against Canadian merchants or shippers; that they are to have precedence over all other merchants or shippers; freight rates on south-bound trips on through bills of lading from any Canadian points west of Lake Superior shall in no case be greater than from the same place via any United States route or port; and on north-bound trips the rates to Canadian points west of Lake Superior shall be as favorable as via any United States route or port to the same place. The Canadian subsidy is payable in quarterly instalments of $12,500, and the Mexican subsidy is $100,000 (Mexican) a year. There is a provision for carrying mail, and it is specifically mentioned that there shall be no other ports of call other than the Canadian and Mexican ports specified or other ports in these countries as may be agreed upon in future.

Maritime Provinces and Newfoundland.

An order-in-council has been passed approving by-laws for the pilotage district of Sydney, N.S.

The new shipping pier at Glace Bay, N.S., for the Dominion Coal Co. was expected to be completed by Oct. 30.

The name of the str. Lady Glover, official number 78,142, of Medway, N.S., has been changed by order-in-council to Amherst.

The Reid Newfoundland Co. is constructing at its machine shops, St. John's, Nfld., boilers for the steamers Louisburg and Ingraham.

Capt. W. P. Cann is engaged in promoting a company to purchase and operate a 1,000 ton steamer, with Louisburg as its home port.

Capt. D. McRae, D. J. McRae and G. Hallefield, Baddeck, N.S., have been appointed members of the board for the Bras d'Or pilotage district of Nova Scotia.

The Parrsboro, N.S., schooner King of Avon, was dismasted, capsized and driven ashore during the hurricane at Fort Morgan, Ala., Oct. 3. The vessel is a total wreck.

The Dominion Atlantic Ry. str. Prince Edward has been given an overhaul, and is understood to be sold to Danish owners to run between ports in Holland and Germany.

The following appointments have been made: A. Carmichael, Monroe's Point, to be harbormaster for St. Ann's Harbor, N.S.; G. E. Fader to be harbormaster for St. Ann's Bay, N.S.

The str. Elfin, owned by the Prince Edward Island Government, was burned at her dock at Charlottetown, Oct. 7. The str. Hillsborough will be put on the Elfin's run between Charlottetown and Rocky Point, P.E.I.

A resolution has been adopted by the St. John, N.B., Board of Trade in favor of the nationalization of the port, and recommending the City Council to prepare and lay before the Government during Nov. a schedule and plan for the harbor and city wharves, together with the cost of the same to date, with a view of the Government taking them over.

The question of the withdrawal of the str. Senlac from the south shore route in Nova Scotia is still under consideration. It has been arranged to ask the Dominion Government to increase the subsidy for the service from $10,000 to $15,000 a year, and to ask the Provincial Government to continue its subsidy of $5,000 a year. In the event of the Senlac being withdrawn, it is hoped to be able to arrange with a Halifax firm to provide a steamer for the service.

The Shipbuilding Investment Co. was incorporated under the Nova Scotia Companies' Act in 1905, with a capital of $50,000, for the purpose of securing a site on Halifax harbor for the construction of steel and iron ships, so that the same might be available at a reasonable cost to any bona fide steel shipbuilder who desired to engage in the construction of steel ships in the province. The capital is divided into $100 shares, and $30-000 has been subscribed and paid for in cash. It has purchased, and has paid for in cash, a property approximating 150 acres in extent situated at Dartmouth, on the shores of Halifax harbor, which the company believes is in every way adapted to the purpose of shipbuilding. The Intercolonial Ry. runs through the property, and it fronts on the deep water of the harbor. Legislation has been secured, authorizing the city of Halifax to give a bonus of $100,000 to the first steel shipbuilding yard established on the shores of Halifax harbor; the town of Dartmouth has promised a similar bonus, and there is a provision for a provincial subsidy of the same amount, certain conditions being attached in each case. The company is at present endeavoring to obtain from the Dominion Government a bounty of $6 a ton, and a further bounty per i.h.p. on all ships and engines constructed in Canada. The officers and directors are: President, G. S. Campbell; Vice-President, J. A. Johnson; other directors, B. F. Pearson, G. Stairs, J. W. Allison, J. P. Longard, Halifax, N.S.; G. B. Hunter, of Swan and Hunter, shipbuilders, Newcastle-on-Tyne, England; Secretary, G. F. Pearson, Halifax.

Province of Quebec Marine.

The water in the channel of the St. Lawrence at Montreal was lower during Sept. than it has been any year since 1901.

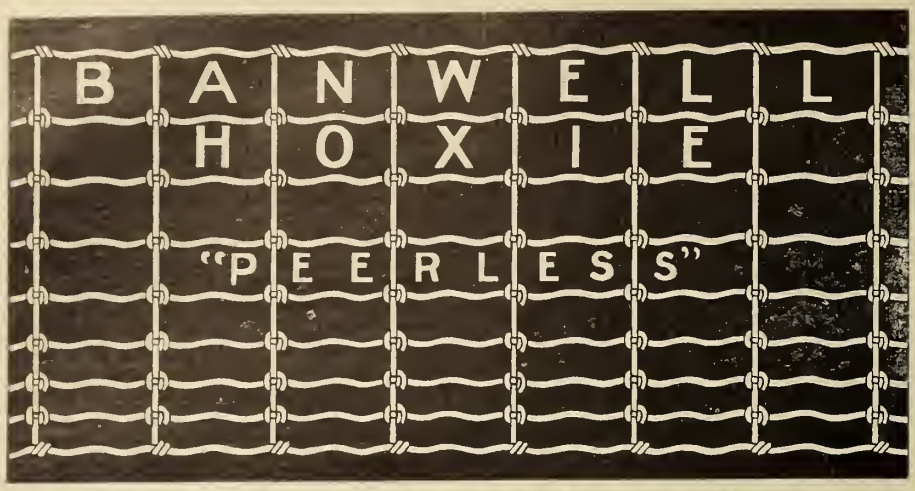
The Montreal Harbor Commission has been given jurisdiction over Isle Ronde by an order-in-council recently passed.

The Montreal Harbor Commissioners' dredge No. 1 was sunk near the Black Diamond Line wharf, after collision with the grain barge Albert M. Marshall, Oct. 9.

The home port of the barge Eva S. Robinson, official number 116,951, has been changed from Sarnia, Ont., to Quebec, Que., and her name changed to Josephine.

The Richelieu and Ontario Navigation Co.'s str. Montreal broke her shaft at Quebec, Sept. 30, and was replaced on the Quebec-Montreal run by the str. Tadousac.

The Department of Public Works is advertising for tenders for the completion of



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160 Acres at	$4.00	per acre,	cash payment	$95.85,	first year's interest	$32.64	and nine instalments of	$80.00
" "	4.50	"	"	107.85,	" "	"	36.73	"	"	90.00
" "	5.00	"	"	119.85,	" "	"	40.81	"	"	100.00
" "	5.50	"	"	131.80,	" "	"	44.89	"	"	110.00
" "	6.00	"	"	143.80,	" "	"	48.98	"	"	120.00
" "	6.50	"	"	155.80,	" "	"	53.05	"	"	130.00
" "	7.00	"	"	167.80,	" "	"	57.16	"	"	140.00
" "	7.50	"	"	179.75,	" "	"	61.22	"	"	150.00
" "	8.00	"	"	196.70,	" "	"	65.28	"	"	160.00

Purchasers who do not undertake to go into residence on the land are required to pay one-sixth of the purchase money down, balance in five equal annual instalments with interest at the rate of 6 per cent. per annum.

Interest at six per cent. will be charged on overdue instalments.

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the wharf and approaches at Seven Islands. Saguenay county, Que., and the removal of a sunken crib there.

A new chart showing the centre line of the channel through St. Mary's current of the St. Lawrence, as dredged to 30 ft. at low water, has been issued by the Montreal Harbor Commissioners.

The Quebec Board of Trade has passed a resolution asking the Dominion Government not to make any change in the Pilotage Act, as it was considered that the act was satisfactory in its present condition. The resolution was arrived at after the Board had had a consultation with representatives of the Corporation of Pilots.

During Sept. there passed through the Lachine Canal 183 steamers and 218 barges in addition to 26 U.S. vessels. The freight carried through the canal during the month was: coal, 11,900 tons; wheat, 808,346 bush.; corn, 68,000 bush.; oats, 583,170 bush.; barley, 101,794 bush.; flax seed, 535,214 bush.; flour, 6,325 barrels; eggs, 986 boxes; cheese, 35,229 boxes; butter, 373 tubs; lumber, 3,462,000 sq. ft.

The Montreal Board of Trade has decided to address a letter to the Minister of Marine pointing out the need of an energetic prosecution of the work of channel deepening at the port, and suggesting that a commission of engineers be appointed to consider the feasibility of an overflow dam with a lock or locks, below Lake St. Peter, for the purpose of giving an increased depth to the channel above that point.

Engineers from the Department of Marine have been for some time past taking borings in the vicinity of the Levis graving dock for the purpose of locating a suitable site for a new dry dock. The Minister of Marine, in informing the Quebec Harbor Commissioners of the steps being taken, said he was fully cognizant of the importance of the port of Quebec, and of the necessity apparent of providing the port with a dry dock capable of receiving vessels of the largest dimensions.

Ontario and the Great Lakes.

Jas. D. Smith has been appointed wharfinger of the Government wharf at Baysville, Ont.

The new str. Dundee, for one of the MacKay companies, Hamilton, was launched at Dundee, Scotland, Oct. 16.

The str. Clipper and a tow barge has been put on a route on the Winnipeg River between Kenora and Boucherville, Ont.

Capt. H. W. Visgers of the str. Idler, running among the Thousand Islands, died suddenly at Alexandria Bay, N.Y., Oct. 5.

New gates are being constructed for the fifth lock at the lower end of the Rideau canal, and will be placed in position during the winter.

The Welland Canal was opened for traffic on Sunday, Oct. 7, and will be kept open on Sundays for the balance of the season of navigation.

Some damage was done to the str. City of Windsor by a fire which broke out in the engine room about an hour after she had tied up at her dock at Owen Sound, Ont., Sept. 25.

It is stated that a steamboat is to be ordered by the Ottawa Navigation Co. to replace the Sovereign, which was burned during the winter of 1905 at her dock, Lachine, Que.

The Department of Marine is advertising for tenders for a tug to maintain open water from Fort William and Port Arthur, Ont., as late as possible in the fall, and to break ice to permit an early start of navigation in the spring of 1907.

STEAMBOAT ALGONQUIN BUILT RECENTLY BY THE HUNTSVILLE LAKE OF BAYS AND LAKE SIMCOE NAVIGATION CO.

The steam barge Gordon Jerry, which had been lying on the beach at Ward's Island, Toronto, since the fall of 1905, was burned there recently. The barge was valued at $2,000, and the fire is believed to have been caused by an incendiary.

The Rideau Lakes Navigation Co.'s str. Rideau Queen was continued on her route later than usual this season, and freight and passenger rates between Kingston and Smith's Falls, Ont., have been cut. The advent of the Smith's Falls str. Stranger on the route is the cause of the movement.

The new str. Winona, while on her first trip from Fort William to Midland, Ont., with grain, grounded on a shoal near Grant's Tomb, Oct. 4, and was released Oct. 5 by the Midland Towing and Wrecking Co.'s tugs Traveller and Magnolia. The Winona was put in Collingwood dry dock, and will require considerable repairs.

The Canadian Lakes and Ocean Navigation Co.'s str. Turret Crown was fined $1,000 at Superior, Wis., for infraction of the marine regulations. The fine was subsequently remitted, as the steamer had been loaded at the elevator while the captain was looking after his clearance papers. The alleged offence consisted in loading the steamer prior to inspection.

The International Waterways Commission, Canadian section, met at Toronto, Oct. 4, and discussed the question of the International boundary along Lake Erie, and how best to mark it so as to prevent disputes about fisheries. The Canadian and the U.S. sections met together at Chicago, Ill., Oct. 16, to discuss the Chicago drainage canal and its effect upon the level of the Great Lakes.

Application will be made next session of the Dominion Parliament for an act incorporating the Ontario and Quebec Ry. Ferry Co. with power to construct, acquire, own and operate railway ferries across the St. Lawrence River between Quebec and Kingston inclusively, and such other works as may be required for that purpose. Geoffrion, Geoffrion and Cusson, Montreal, are solicitors for the applicants.

The official tests of the car ferry Ashtabula, have been made, and have proved satisfactory. When fully loaded the steamer had a draught of 14 ft. 10 in., two inches within the contract requirements, and under somewhat adverse conditions, a steady working speed of 12 miles an hour was maintained. The steamer, on an emergency, can make 15 miles an hour. She runs between Ashtabula, Ohio, and the C.P.R. at Port Burwell, Ont.

The Department of Marine has arranged to open marine schools at Toronto and Collingwood, Ont., Dec. 1. The lecturer at Toronto will be Capt. C. Moller, examiner of masters and mates at that port, and Capt. C. Coles, examiner of masters and mates at Collingwood, will be lecturer at the school there. It is not at present the intention of the department to open any more new schools for the coming winter.

Navigation at Port Colborne, Ont., was blocked for a couple of days, Sept. 25 and 26, by the grounding of the steamers Westmount and Rosedale at the entrance to the harbor. The grounding was caused by the strong easterly and southeasterly winds, which had reduced the level of the water along the lake shore at this point. There is also a shoal at the harbor entrance, the removal of which is contemplated by the Government.

A decision has been given by Justice Anglin in the case of the Keewatin Power Co., and the Hudson's Bay Co. against the town of Kenora, Ont., which vests in the Province the ownership of the beds of navigable rivers, notwithstanding that grants of the lands on the banks of the rivers have been made to private owners. The interruption of falls or other obstructions in a river otherwise navigable does not, according to the judgment, alter the case.

The str. Maud, owned by the Ottawa Navigation Co., and the Ottawan, owned by the Ottawa Forwarding Co., got into collision in the Ottawa River, near Hudson, Sept. 27, the former sinking, three persons being drowned. The Maud was on her way to Montreal, and the Ottawan was going to Ottawa, and seeking to pass each other about half-past three o'clock in the morning there was some misunderstanding among the officers of the two steamers about signals, with the result that the Ottawan ran into the Maud, which sank in a few minutes. The engineer, a stewardess and a passenger of the Maud were drowned. The cargo included eight horses, 30 cattle and 150 sheep, which sank with the steamer. An investigation has been ordered by the Department of Marine.

Complaints having been made of the obstruction to general navigation upon the channels in Georgian Bay by rafts of logs, an additional section, numbered 43, has been added to the general rules and regulations for the government of ports in the provinces of Nova Scotia, New Brunswick, Quebec, Ontario, British Columbia and Prince Edward Island, which have been made and established under the provisions of the Harbor Masters' Act, chap. 86 of the revised statutes of Canada, by order-in-council of June 12, 1889. The new provisions reads as follows: "43. No logs, in bags exceeding 20,000 pieces, shall be towed through any of the ports in Georgian Bay, and any master, owner or person in charge of any bag of logs violating this regulation

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Arr. Lowell	*6.11	p.m.,	*7.17	a.m.
" Worcester	†9.04	"	*9.19	"
" Boston	*6.55	"	*8.05	"

VIA G.T.RY., WEST SHORE & ROTTERDAM

Lv. Toronto			*4.10	p.m.
" Niagara Falls			*6.30	"
" Buffalo	*4.30	a.m.,	*7.20	"
Arr. North Adams	*1.08	p.m.,	*5.11	a.m.
" Worcester	*4.55	"	*9.59	"
" Boston	*5.20	"	*9.50	"

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" Old Orchard	†8.27 p.m.	*8.41 a.m.

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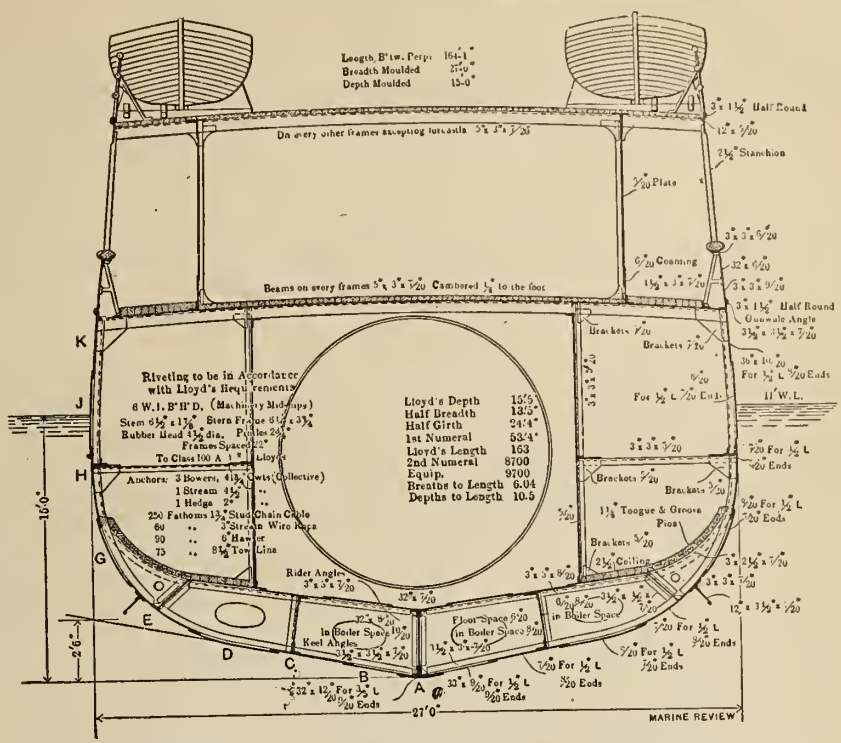
shall be subject to a penalty of $100 for each such violation."

The str. Algonquin, which the Huntsville, Lake of Bays and Lake Simcoe Navigation Co. placed on the run between Huntsville and the portage during the summer, is 125 ft. long, by 25 ft. beam, and has a speed of 16 miles an hour. The hull is oak framed and oak planked, and has main and upper decks, with texas on the hurricane deck. The main deck contains the engine and boilers, crew's quarters, and an unenclosed promenade at the stern. On the upper deck is a circular room, about 13½ ft. diameter, for ladies; a smoking room, 14 by 24 ft.; lavatory and other accommodation, while the captain's quarters, wheelhouse, etc., are on the hurricane deck. The Algonquin is propelled by a single screw, driven by a fore-and-aft compound engine, cylinders 14 and 28 in. diameter by 20 in. stroke; steam being supplied by a single marine boiler, 8½ by 11 ft. She is lighted throughout by electricity, the dynamo being driven by a separate engine. In addition to the general lighting system, provision is made for a display lighting by 150 lights round the decks, and a 13 in. searchlight. For fire protection there are provided standpipes on each deck, and there are altogether 450 ft. of hose with nozzles attached always ready for service. Two lifeboats, one more than the act requires, and a full supply of life belts have been provided. The fittings throughout are substantial, and the steamer, which cost $25,000, is the largest and best equipped in the service. The steamer was built by the company at its own yards at Huntsville, the engine and boiler being purchased. An order has been placed for another steamer for the Lake of Bays, to be ready for the season of 1907. This steamer will be similar in every respect to the Algonquin, except that she will be 10 ft. shorter and have one foot less beam. She will be of composite construction, the steel frame being got out at Kingston, and delivered on the Lake of Bays during the winter. The planking and fittings will be got out during the winter in the company's shops, and the steamer will be put together and launched in the spring.



MIDSHIP SECTION DOMINION GOVERNMENT HYDROGRAPHIC SURVEY STEAMBOAT.

Manitoba, Saskatchewan, Alberta, Etc.

The steamer Princess, which sank in Lake Winnipeg, Man., Aug. 26, is breaking up, and news reached Selkirk, Man., Oct. 3, that a lot of wreckage and the body of Capt. Hawes had been washed ashore. The body was removed to Selkirk for burial.

The Prince Albert, Sask., Board of Trade has decided to inaugurate a movement to unite the provinces of Manitoba, Saskatchewan and Alberta upon the question of the opening up of the Hudson Bay route. It is claimed that there is open navigation from about midsummer to Christmas, and that the only danger is from floating ice during July. The port which it is desired to have developed is Fort Churchill, Keewatin.

The str. Alexandra was forced by a strong wind into collision with a stationary sand barge near the Canadian Northern Ry. bridge, Winnipeg, Sept. 20. A large hole was ripped in the steamer's hull and she turned partially over and sank against the barge. The steamer has been hauled ashore for repairs. She is owned by the Pioneer Navigation and Sand Co., and was built about four years ago by the Red River Navigation Co.

Sault Ste. Marie Canals Traffic

The following commerce passed through the Sault Ste. Marie canals in Sept., 1906:

Articles			Canadian Canal	U.S. Canal	Total
Copper	Eastbound	Net tons	835	14,177	15,012
Grain	"	Bushels	1,643,256	1,959,289	3,602,545
Building stone	"	Net tons	....	3,000	3,000
Flour	"	Barrels	377,969	472,126	850,095
Iron ore	"	Net tons	451,845	4,786,772	5,238,617
Iron, pig	"	Net tons	23	....	23
Lumber	"	M.ft.B.M.	3,914	113,878	117,792
Silver ore	"	Net tons	....	....	....
Wheat	"	Bushels	3,628,702	4,055,139	7,683,841
General merchandise	"	Net tons	9,505	7,822	17,327
Passengers	"	Number	2,071	2,437	4,508
Coal, hard	Westbound	Net tons	29,820	118,270	148,090
Coal, soft	"	Net tons	134,743	935,752	1,070,495
Flour	"	Barrels	180	....	180
Grain	"	Bushels	....	....	....
Manufactured iron	"	Net tons	14,132	28,332	42,464
Salt	"	Barrels	1,428	19,900	21,328
General merchandise	"	Net tons	60,001	60,882	120,883
Passengers	"	Number	2,404	1,760	4,164
Freight:					
Eastbound		Net tons	655,156	5,209,859	5,865,015
Westbound		Net tons	238,923	1,146,221	1,385,144
Total freight		Net tons	894,079	6,356,080	7,250,159
Vessel passages		Number	655	2,257	2,912
Registered tonnage		Net tons	821,726	4,804,157	5,625,883

B.C. and Pacific Coast Marine.

Navigation on the Yukon River closed Oct. 7 for the winter season, so far as the regular service of steamers was concerned.

The str. Columbia, owned by the White Pass and Yukon Ry., was burned near Five Fingers, Yukon River, Sept. 27, a cabin boy receiving fatal injuries.

The gasoline schooner Vera was wrecked and burned on the bar of the Quest River, B.C., recently. She was driven on a bar; the gasoline got adrift and the whole vessel was soon a mass of flames. The wife of a trader, who was a passenger, was fatally burned.

The launching weight of the new C.P.R. str. Princess Royal was approximately 370 tons. The initial pressure on the ways was 2.5 tons per sq ft.; the inclination of ground ways per foot throughout was 15-16 in., of building ship per ft. ⅞ in., and inclination of ship per foot ⅞ in.

The U.S. str. Indianapolis, now running between Seattle, Wash., and Victoria, B.C., is to be transferred to the Seattle-Bellingham route, and a new steamer put on the run to Victoria. The manager of the Puget Sound Navigation Co. is visiting ports on the Atlantic coast, looking for a suitable steamer.

The investigation into the method of conducting business at the Vancouver shipping office, ordered by the Department of Marine, is in progress before Judge Henderson. Representatives of the labor interests state that sailors from the port are not only roughly handled, but are underpaid and underfed.

The C.P.R. str. Yosemite has been sold to the Puget Sound Excursion Co., a new company formed in Seattle, Wash., to run special excursion steamers to Puget Sound ports. The Yosemite will be replaced on the U.S. register, she having been originally built in California for the Sacramento River trade.

The C.P.R. str. Princess Victoria ran on a reef off Oak Bay, on the eastern shore of Vancouver Island, Oct. 16, while on her regular trip from Vancouver to Victoria, B.C. She was floated during the night and proceeded to Esquimalt for examination and necessary repairs. The passengers had been removed previously by the Rithet, and landed in Victoria.

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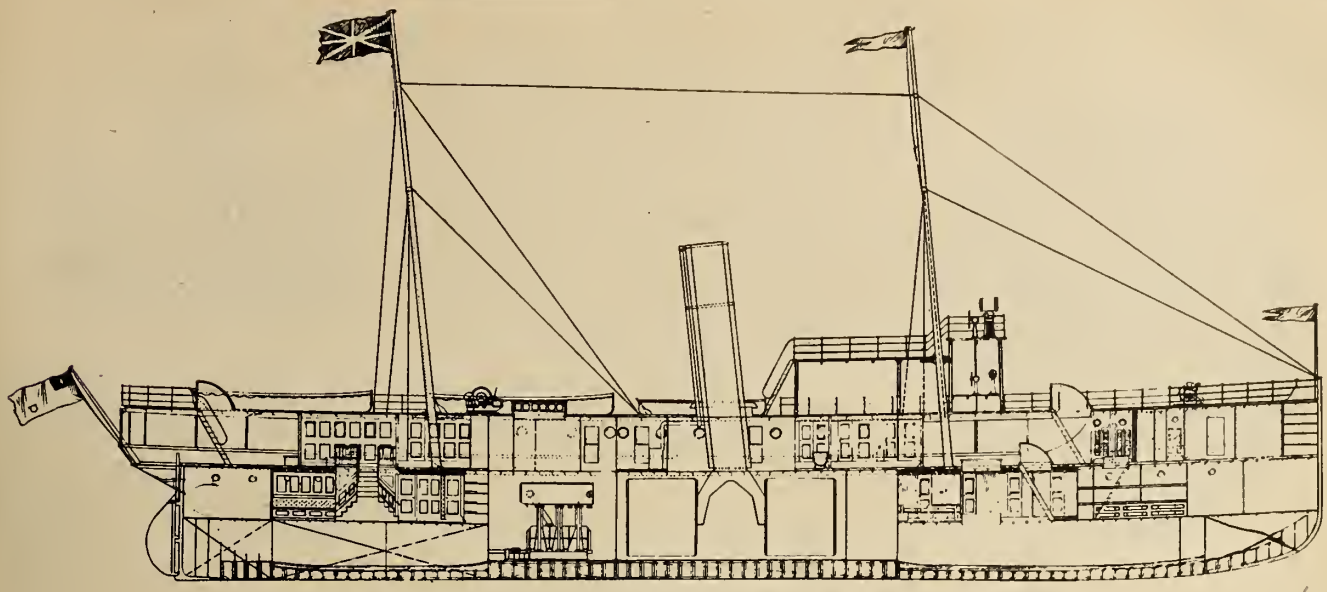


INBOARD PROFILE OF DOMINION GOVERNMENT HYDROGRAPHIC SURVEY STEAMBOAT.

For description see RAILWAY AND MARINE WORLD, October, pg. 607.

Approval is being asked for the construction of a pile wharf on lots 13 and 14, block 8, Victoria county, B.C., plans for which have been deposited in the land registry office, Victoria, and Department of Public Works, Ottawa. The proposed wharf is to be 230 ft. long, 40 ft. wide, and to be connected with the shore by a floating approach 260 ft. in length by 4 ft. in width. V. Jacobson, Victoria, is solicitor for the applicants.

In an interview at Victoria, B.C., Sir T. G. Shaughnessy stated that it was the intention of the C.P.R., as soon as the necessity arose, to place on the Victoria service another steamer equal, if not superior, to the Princess Victoria. The new ferry and tug for the service between Ladysmith and the mainland would be ready early in 1907. It was also contemplated to put on a special freight steamer on the Victoria service during the tourist season.

An order-in-council has been passed fixing the charges to be made vessels trading on Lewis River, and using the British Yukon Ry. wharf at Whitehorse, Yukon territory. Vessels 100 ft. long and upwards are to pay $20, and vessels of less than 100 ft. $10 for each 24 hours or fraction thereof. No charges are to be made in the case of steamers or boats employed in the service of the Crown. A second order approves of maximum storage charges and wharfage rates for the wharf. The waterfront was leased to the British Yukon Ry. Co., one of the conditions being that no charges were to be made during the first five years. This period has now expired.

By an order-in-council dated Sept. 11, approval has been given to certain amendments to the by-laws of the pilotage district of Nanaimo, B.C. The amended by-laws read as follows:

Sec. 7—"Any pilot or other person assuming charge of any vessel bound to any port within the pilotage district of Nanaimo, shall not be eligible to claim pilotage unless when no licensed pilot for this district has offered to pilot such vessels, or unless such vessel is in distress, and any pilot belonging to any pilotage district of British Columbia in charge of a vessel shall immediately surrender his charge when spoken within the limits of this pilotage district by any of its licensed pilots."

Sec. 13—"All questions or disputes arising between pilots, masters of vessels and others respecting pilotage shall be submitted to the Pilotage Authority, to be adjudicated upon and decided by them; such decision shall be final and binding on all parties."

Sec. 19—"The pilots licensed for the Nanaimo district shall jointly maintain at least one pilot sloop or schooner; such vessel shall be surveyed by or on behalf of the Pilotage Authority, and if satisfactory to the said Authority, shall be licensed for a term of 12 months on payment of the expenses of such survey."

Notices to Mariners.

The Department of Marine has issued the following notices to mariners:

No. 105. Sept. 18.—Nova Scotia—253. West coast, Schooner passage, bell buoy established. 254. Arichat harbor, Jerseyman Island, beach point, color of light.

No. 106. Sept. 20.—Ontario—259. Lake Erie, Port Colborne, lights established on G.T.R. elevator, main light discontinued.

No. 107. Sept. 20.—Quebec—260. Saguenay River, Riviere du Moulin range, new lighthouses. 261. River St. Lawrence, Crane Island, light improved.

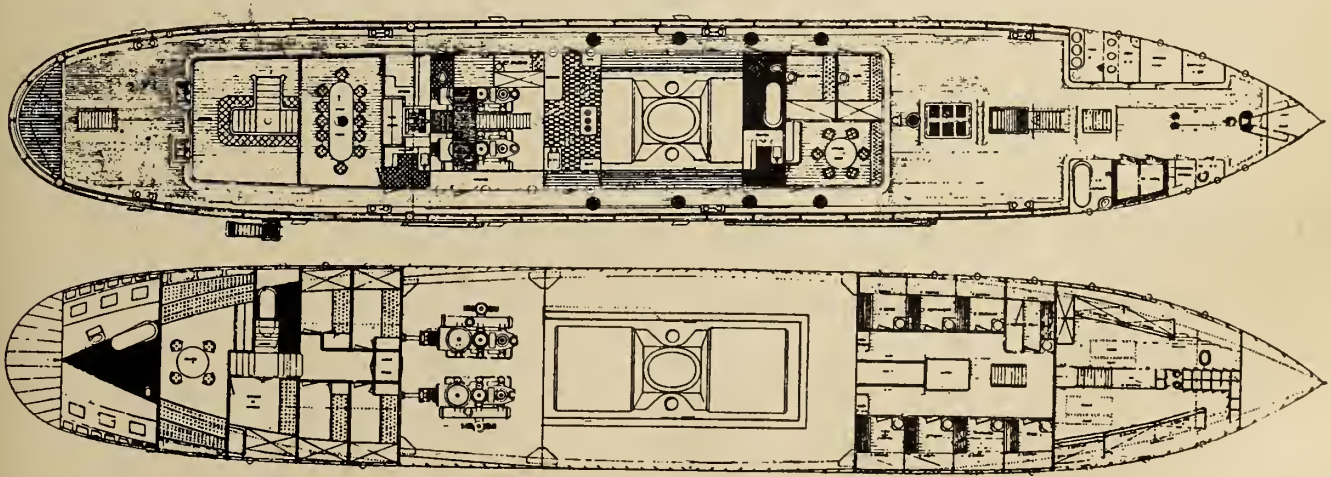
No. 108. Sept. 22.—British Columbia—262. Vancouver Island, southeast coast, Trial Island, fog alarm established.

No. 110. Sept. 27.—Quebec—264. Gulf of St. Lawrence, Anticosti, Ellis bay, range light established.

The following have been issued by the United States Hydrographic Department:

No. 40. Oct. 6.—1721. Lake Huron, east side, Saugeen River, rear range lighthouse moved. 1722. Detroit River entrance, Bar point shoal, shoal southward. 1723. Lake Erie, Kelley's Island, wreck southwestward.

No. 41. Oct. 13.—Lake Huron—1759. Detour passage, Detour light station, color of tower changed. Lake St. Clair—1760. St. Clair flats west channel buoys, lights exhibited.



DECK PLANS OF DOMINION GOVERNMENT HYDROGRAPHIC SURVEY STEAMBOAT.

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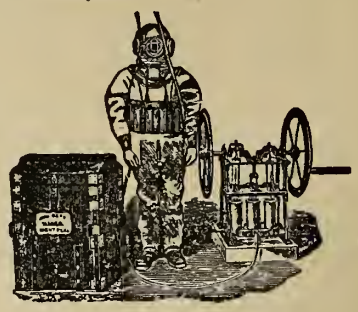

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Among the Express Companies.

The Canadian Ex. Co. has opened an office at Tawachiche, Que.

The Dominion Ex. Co.'s office at Grenfell, Sask., was broken into Oct. 2, and a package of jewelry stolen.

An addition has been built to the C.P.R. station at London, Ont., to provide accommodation for the Dominion Ex. Co.

The Canadian Ex. Co. turned loose a consignment of 800 pigeons at Windsor, Ont., Oct. 20. The pigeons were consigned to a local hotelkeeper who declined them because they had arrived too early.

W. S. Stout, President and General Manager Dominion Ex. Co., has returned to Toronto, having completed a trip of inspection of the company's offices in the Northwest and on the Pacific Coast.

The Canadian Ex. Co. has temporarily closed offices at the minor stations on the Intercolonial Ry. in Quebec, New Brunswick and Nova Scotia, and all stations on the Prince Edward Island Ry. with the exception of Charlottetown and Summerside.

The Canadian Ex. Co. has closed its summer offices in the Muskoka Lakes district, Georgian Bay and Lake Superior points. The office at Port Carling, in the Muskoka Lakes district, will be kept open during the winter, and will be reached by stage from Falkenburg, after the close of navigation.

The winter express stage service maintained by the White Pass and Yukon Ry. between Whitehorse and Dawson, Yukon, has been started. A miscellaneous connection of vehicles will be used until there is sufficient snow for sleighs to be used. The time occupied in the trip by the sleighs will be five days.

In the excavations being made on McGill St., Montreal, for the building which the G.T.R. is erecting for the Canadian Ex. Co., the foundations of a large fortification have been uncovered. The uncovered portion of the wall is 40 ft. long, 4 ft. wide, and 6 ft. deep, the bottom of the wall being 18 ft. below the level of the street.

Telegraph and Cable Matters.

The G.N.W. Telegraph Co. has opened offices at Capucius, St. Godfroy, and Tawachiche, Que.

The C.P.R. Telegraph Department is calling attention to the rules governing the handling of "night" messages.

The Newfoundland post office department has opened telegraph offices at Deer Lake, Point Rich, and Trepassey, Nfld.

The C.P.R. Telegraph Department has opened offices at Moberley station, and Oxdrift, Ont.; Fassett, Que.; Dubec, Sask.

Jas. Barclay, chief operator G.N.W. Telegraph Co., Quebec, recently celebrated the fiftieth anniversary of his entering the telegraph service. He started with the Montreal Telegraph Co., now merged in the G.N.W.T. Co.

The shareholders of the Western Union Telegraph Co. have elected H. Walters and J. J. Slocum as directors to succeed the late Russell Sage and General L. Fitzgerald, respectively. It was also decided to authorize the issue of $25,000,000 of convertible bonds.

The first pole of the telegraph line along the G.T. Pacific Ry. was erected at Portage la Prairie, Man. It is expected that the line will be strung at the rate of two miles a day until about the end of the year, and that a commercial service will be inaugurated early in 1907.

The Canadian Northern Telegraph Co. has opened commercial telegraph offices at the Canadian Northern Ry. stations at Manville, Alta.; Maymont, Muenster, and Veregin, Sask. A number of temporary offices have been opened at stations on the line for the grain exporting season.

A list of "Forty-niners of the Telegraph" recently published contains the names of the following Canadians: N. W. Bethune, entered service 1847 at Montreal; H. P. Dwight, entered service 1847 at Montreal; R. F. Easson, entered service 1849 at Toronto; D. Kissock, entered service 1847 at St. Catharines, Ont.

F. T. Jennings, who has been appointed Superintendent Lake Superior District C.P.R. Telegraphs, Sudbury, Ont., was connected with the G.N.W. Telegraph Co. until 1886, when he joined the C.P.R. service as assistant chief operator and circuit manager. Montreal. He became chief operator in 1890, and Inspector, Jan., 1904, which position he held at the date of his present appointment.

At the 36th annual convention of the Old Time Telegraphers and Historical Association at Washington, D.C., Oct. 9, I. McMichael, General Manager G.N.W. Telegraph Co., Toronto, and G. F. Macdonald, Superintendent of fire and police telephones, Ottawa, Ont., were elected Vice-Presidents. Those present at the meeting from Canada were: L. B. McFarlane, and wife, Montreal; G. F. Macdonald, Ottawa.

The international conference upon wireless telegraphy was opened at Berlin, Germany, Oct. 3, and was expected to continue during the remainder of the month. The principal matter under discussion was the question of a compulsory interchange of messages between all systems. At a conference in 1903 some arrangements were made, but the Marconi companies refuse to receive messages from other companies. Great Britain and Italy favor the contention of the Marconi company.

We are advised that the power at the Marconi wireless telegraph station at Cape Race has been increased so as to enable it to communicate with the station at Sable Island, N.S. With the completion of this work and the new stations at Father Point and Seven Islands, Que., it will be possible for vessels equipped with wireless telegraphy, taking the northerly route to be in communication with the mainland from 100 miles east of Belle Isle, and vessels taking the southerly route to be in communication with the mainland from 100 miles east of Cape Race, up to their arrival in Quebec.

Tests have been made on the C.P.R. main line east of Montreal, of the telegraphone, an instrument by which telephonic communication with any station can be established on a train by connecting it with the telegraph wires, without in any way interfering with the use of the line as a telegraph line. The special train, from which the experiments were made, was brought to a standstill near St. Constant, and in a few minutes connections were made and conversation opened up with the C.P.R. stations at Farnham and Montreal. Among those present at the test were D. McNicoll, Jas. Kent and W. J. Camp.

The Canadian Pacific Ry. Telegraph Department recently formed a new division on its line, taking in the Lake Superior Division of the railway between Chalk River and Fort William, Ont., including the branch from Sudbury to Sault Ste. Marie. F. T. Jennings, heretofore Inspector at Montreal, has been appointed Superintendent, with office at Sudbury, Ont.; he is succeeded as Inspector at Montreal, by H. Bott, heretofore chief operator there. F. J. Mahon, heretofore local manager at Quebec, has been appointed chief operator at Montreal, and Jos. Manning, heretofore at Windsor St. station, Montreal, has been appointed local manager of commercial telegraphers, Quebec.

The British Pacific Cable.

The report of the Pacific Cable Board for the year ended Mar. 31, 1906, is contained in a parliamentary return recently issued by the British Government. The observations of the Chairman of the Board, Sir S. Walpole, K.C.B., show that the cable was maintained in efficient working order; that the repair steamer, buildings, plant and apparatus, were in good order, and that there had been no interruptions of the cable during the year. The gross revenue was £94,456 9s. 6d. against £84,301 9s. 1d. in the previous year. From the gross revenue £2,640 0s. 7d. had to be deducted on account of payments made to the Atlantic cable companies and the C.P.R. for transmitting messages between Vancouver and Europe and vice versa, and for giving customers the same facilities that are afforded by the Eastern Cable Co.'s route. The net revenue was, therefore, £91,814 8s. 11d. against £82,188 1s. 5d., or including interest £91,952 13s. 3d., against £87,446

THE Manitoba and North-Western Railway Company will apply to the Parliament of Canada, at its next session, for an Act extending the time for the completion of its lines.

H. C. OSWALD,
Secretary.

Montreal, 10th October, 1906.

NOTICE is hereby given that the Qu'Appelle, Long Lake & Saskatchewan Railroad and Steamboat Company will apply to the Parliament of Canada at its next session for an act authorizing the company to lease to the Canadian Northern Railway Company its lines, and to give the said company running powers thereover, and confirming an issue of 4 per cent., thirty year mortgage debenture stock made by the company and declaring the powers of the company with respect to the consolidation of the whole or portions of the issues of securities of the company, its predecessors or successors, and to the retirement by exchange or otherwise of outstanding securities, and to the preservation of the rights and priorities of securities retired in part.

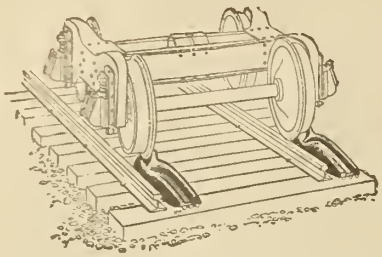
Z. A. LASH,
Chief Solicitor for the said Company,
No. 1 Toronto Street, Toronto.

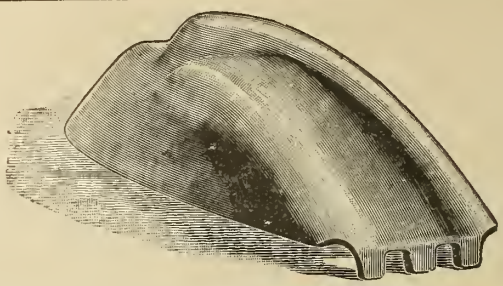
Dated October 17th, 1906.

NOTICE is hereby given that the Canadian Northern Quebec Railway Company will apply to the Parliament of Canada at its next session for an act authorizing the company to enter into agreements for any of the purposes mentioned in section 281 of the Railway Act, 1903, with the Canadian Northern Ontario Railway Company and the Canadian Northern Railway Company, or either of them, and to lease to the last-named companies, or either of them, its lines or leased lines, or any of them, and to give the said companies running powers thereover, and confirming an issue of 4 per cent. perpetual guaranteed debenture stock made by the company, and declaring the powers of the company with respect to the consolidation of the whole or portions of the issues of securities of the company, its predecessors or successors, and to the retirement by exchange or otherwise of outstanding securities, and to the preservation of the rights and priorities of securities retired in part.

Z. A. LASH,
Chief Solicitor for the said Company,
No. 1 Toronto Street, Toronto.

Dated October 17, 1906.





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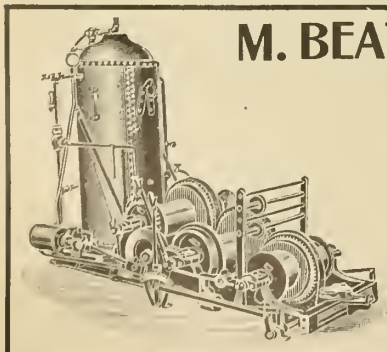

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Subscriptions are based on the service furnished, and are available only by reputable wholesale, jobbing and manufacturing concerns, and by responsible and worthy financial, fiduciary and business corporations. Specific terms may be obtained by addressing the Company at any of its offices.

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Calgary, Alta.		Winnipeg, Man.

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Gen. Man. Western Canada, Toronto.

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10s. 8d. The message revenue was increased during the year from the decision of the Commonwealth of Australia to pay over to the Board the whole of the receipts in Australia up to Dec. 31, 1905, so that the message revenue contains the receipts in Australia for 13 months, instead of 12 months as in the previous year. The expenditures, including £34,000 set apart for renewal account, were £86,963 17s. 0d., against £85,751 11s. 2d. in the previous year; showing a surplus revenue of £4,988 16s. 3d. The provision of £77,544 18s. 0d. for interest and sinking fund, left a net deficiency of £72,566 1s. 9d., against £75,849 18s. 6d. in the previous year. The deficiency is made good by the British, Canadian, Australian, and New Zealand Governments. The renewal fund amounted, Mar. 31, to £125,158 3s. 1d. of which £12,500 was held in spare cable, £2,750 12s. 6d. was in land, and £109,907 10s. 7d. was invested in home and colonial securities. The land line services in Canada, Australia and New Zealand, have been generally well maintained by the Governments concerned and by the C.P.R. The Atlantic companies have afforded uninterrupted cable communication throughout the year and a rapid and efficient service. The financial results of the year are set forth in the following statement:

RECEIPTS.

Traffic receipts	£94,456	9	6			
Less "Date and Time," etc., payments	2,642	0	7			
				£91,814	8	11
Interest on deposits				138	4	4
Deficiency recoverable in the following proportions:						
England	£20,154	9	4			
Canada	20,154	9	5			
Australia	24,185	7	3			
New Zealand	8,061	15	9			
				72,556	1	9
				£164,508	15	0

EXPENDITURE.

Third annuity payment	£ 77,544	18	0
Head office salaries and expenses	4,916	11	4
Head office advertising, canvassing, engineers' fees, royalties and cost of remitting money home	1,400	2	3
Stations, salaries and expenses	29,697	18	3
Ship salaries and expenses	15,338	17	3
Provident fund	1,359	5	5
Renewal account	34,000	0	0
Expenses in connection with opening of new offices in Australia	251	2	6
	£164,508	15	0

The Board's forecast of its probable revenue and expenditure during the year 1906-7, as submitted Dec. 30 last, follows:

Traffic revenue	£88,600	Annuity	£77,545
Estim'd deficit	87,006	Renewal Fund	33,000
		Working exp.*	65,061
	£175,606		£175,606

*Including £8,000 for expenses in connection with opening offices and competitive tactics in Australia.

Power Crossings of Telegraph Lines

The annual meeting of the Association of Railway Telegraph Superintendents was held at Denver, Colo., recently. The list of active members includes: W. W. Ashald, G.T.R., Montreal; W. J. Camp, C.P.R., Montreal; M. Magiff, Central Vermont Ry., St. Albans, Vt.; E. H. Millington, Michigan Central Rd., Detroit, Mich. One of the matters discussed was the overhead crossing of wires, which was introduced at the meeting in 1905 by W. J. Camp, of the C.P.R., and reintroduced at the recent meeting by E. E. Parsons, Illinois Central Rd. In the course of the discussion Mr. Camp said some progress had been made in Canada. The Bell Telephone Co.'s construction was generally very good; the people the railways had to look after were the little fellows; but, of course, one rule could not be made for one company and let the other disregard it. During the past winter the Bell Telephone Co. and the different railways in Canada agreed to submit a test case to the Railway Commission for a standard system of crossing railways and railway telegraph wires by telephone wires or other low tension carrying wires. After a full day's session the Railway Commission gave an order in this particular case, which was understood to apply to all cases. (The specifications, as embodied in the order, were published in our Sept. and Oct. issues, pgs. 529 and 573, respectively). Mr. Camp added: I might file with you for reference to the committee what has been practically agreed on between the high tension companies and the railway companies in Canada as a plan for crossing their wires over a railway. It may be of benefit to the committee. It might be agreed upon with some slight modifications. We had a session with the high tension companies in Montreal about a month ago, and they agreed to everything we asked except for a steel structure with four uprights. We have agreed to allow four cedar uprights, provided the butts for 6 ft. from the ground are provided entire protection from fire. In other respects the blue print is what has been agreed upon, subject to the consent of the Railway Commission. I think it will no doubt pass the Commission, as we got together with the high tension people, and all agreed upon it. Last year I described a cradle protection we had adopted, but we have abandoned the cradle idea altogether, taking as a basis the idea that in building a bridge across a gully or stream, a bridge is not built simply strong enough to carry a train, and then a stronger bridge built underneath it to catch the upper bridge if it should break. We make our supports on each side of the track and telegraph line very strong, two uprights in the shape of an A on each side of the arms, and two of those at the end of the arms, making four uprights. At the top there are double cross-arms, to which each of the transmission wires must be attached. The crossing wires must be 25% greater tensile strength and 25% greater conductivity than their transmission line, but in no case less size than no. 2, B. & S. gauge. These crossing wires are to be of stranded copper cable, the total conductivity being equal to no. 2, B. & S. The uprights are to be thoroughly well guyed so that should the entire line on either side or both sides become wrecked the uprights will stand.

The whole question was referred to a committee to investigate and report.

Determining Boundary by Telegraph.

By the flashing of telegraphic signals from Fort Egbert, Alaska, and Vancouver, B.C., the exact boundary line between the U.S. and Canada at the Yukon River has just been determined. A shaft of granite will be reared at the point agreed upon by the observers, and with this as a basis the long boundary stretch on the 141st meridian in the wild and unexplored country from the Arctic ocean southward to the St. Elias mountains will be marked out at some future time.

The signalling at the boundary line was done recently, and has been reported to the U.S. Coast and Geodetic Survey in Washington by Prof. Edwin Smith, the agent designated by the joint boundary commission to represent the U.S. Fort Egbert and Vancouver were selected as the two points from which to send the messages, because their longitude is known accurately, and Fort Egbert is the nearest telegraph station to the Yukon boundary line, which is about six miles distant. A telegraph wire was run to the approximate boundary station, and an agent stationed there. The three commissioners waited until there was clear weather at all three stations.

The problem involved was to determine the exact point at which the 141st meridian crosses the Yukon, and the scientific method

LA Compagnie du Chemin de fer de Colonisation du Nord will apply to the Parliament of Canada, at its next session, for an Act extending the time for the completion of its lines.

H. C. OSWALD,
Secretary.

Montreal, 10th October, 1906.

THE Canadian Pacific Railway Company will apply to the Parliament of Canada, at its next session, for an Act extending the time for the commencement and completion of the branch line authorized by 4-5 Edward VII, chapter 73, being a branch line from a point at or near Otterburne, on the Emerson Branch, thence south-easterly to a point at or near Stuartburn in Township 2, Range 6 east, Manitoba.

C. DRINKWATER,
Secretary.

Montreal, 10th October, 1906.

THE Canadian Pacific Railway Company will apply to the Parliament of Canada at its next session for an Act to authorize it to construct the following lines of railway in the Provinces of Alberta and Saskatchewan:

1. A line from a point in townships 32 to 34, Ranges 21 to 23 west of the 2nd Meridian, in a northerly direction into the Town of Prince Albert, a distance of about one hundred and thirty miles.

2. A line from a point on the Pheasant Hills Branch of the Canadian Pacific Railway in Township 39 or 40, Range 19 or 20 west of the 3rd Meridian, in a northerly and westerly direction towards the Battle River, thence westerly through Townships 43, 44 or 45 to a point in Range 5 or 6 west of the 4th Meridian, thence southerly and westerly crossing the Pheasant Hills Branch of the Canadian Pacific Railway to a junction with the Lacombe Extension of the Calgary and Edmonton Railway in Townships 36, 37 or 38, Range 11, 12 or 13 west of the 4th Meridian, a distance of about one hundred and eighty miles.

3. A line from a point on the proposed extension of the Moose Jaw Branch of the Canadian Pacific Railway in Townships 27, 28, 29, 30 or 31, Range 4, 5, 6 or 7 west of the 3rd Meridian, in a westerly and northerly direction to a junction with the terminus of the Lacombe Branch of the Calgary and Edmonton Railway as authorized by Act 3, Edward VII, Chapter 89, 1903.

4. A line from a point on the Pheasant Hills Branch of the Canadian Pacific Railway in Townships 39, 40 or 41, Range 3, 4 or 5 west of the 4th Meridian, in an easterly and southerly direction to a point in Townships 30, 31 or 32, Range 17, 18 or 19 west of the 3rd Meridian, a distance of about one hundred and thirty miles.

5. A line from a point on the Pheasant Hills Branch of the Canadian Pacific Railway in Township 36, Range 6 or 7 west of the 3rd Meridian, in a southerly and westerly direction to a point in Townships 29, 30 or 31, Range 10, 11 or 12 west of the 3rd Meridian, a distance of about seventy-five miles.

6. A line from Weyburn on the northwestern extension of the Souris Branch of the Canadian Pacific Railway westerly through Townships 6, 7, 8, or 9 to a point in Range 30 west of 2nd principal Meridian, a distance of about one hundred miles.

7. A line from a point at or near Estevan in a northwesterly direction to a point in Township 4, Range 22 west of the 2nd Meridian, a distance of about one hundred miles.

CHARLES DRINKWATER,
Secretary.

Montreal, 10th October, 1906.

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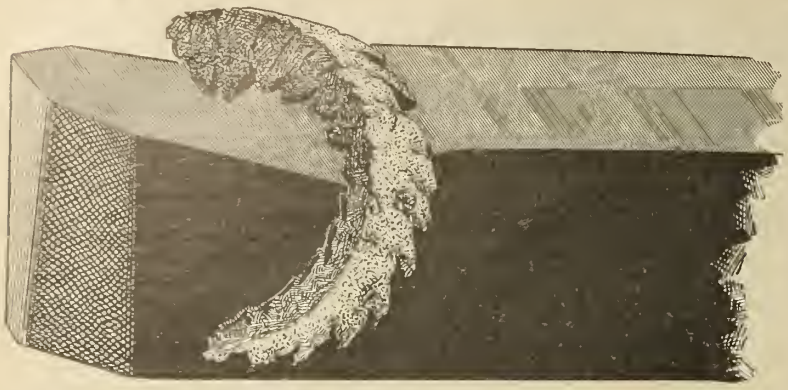

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of doing this is to estimate the precise time at which a certain star crosses the meridian. On the night agreed upon the observer at Vancouver flashed to the man waiting at the boundary line the time at which he observed the star, and the agent at Fort Egbert did likewise. The boundary man therefore got messages from both sides and was able to use these as the basis of calculation.

Thrilling adventures are being experienced by the surveyors engaged in marking the boundary line on the coast of the gulf of Alaska, about 200 miles above Sitka, according to reports to the coast and geodetic survey. Morse, chief of the party at Yakutat, recently informed the survey that three of the four sub-parties under his charge would finish their work by the end of October, but that the party working in the Alsek valley is experiencing unusual difficulties, and the men are often in peril of their lives.— Telegraph Age.

General Telephone Matters.

A local line is being constructed by the farmers in Baldur district, Manitoba.

J. T. Mattice of the Bell Telephone Co.'s Winnipeg office, to which he was recently transferred from Montreal, has typhoid fever.

The Bell Telephone Co. is negotiating with the Owen Sound, Ont., Town Council for an exclusive franchise there, and a preliminary agreement has been reached.

The British Columbia Telephone Co. is arranging for the introduction of nickel in the slot machines for its public pay stations in New Westminster and Vancouver.

An application has been made to the Winnipeg City Council for a franchise for the installation of a competitive telephone system in that city, by the Independent Telephone Co.

In connection with the visit of the British battleship Brilliant to St. Johns, Nfld., recently, a cable was laid to connect the telephone system of the city with the vessel. The cable will be allowed to remain so as to be connected with any other vessel requiring a similar service in future.

The Lindsay, Ont., Town Council passed a by-law granting a 21-year franchise to the Canadian Machine Telephone Co., which has recently completed the installation of an automatic telephone exchange at Peterborough, Ont., and is installing a similar exchange at Brantford, Ont.

The Bell Telephone Co. has strung new lines from St. Jerome to St. Sophie, from Coteau Landing to St. Zotique, and from Montobello to Fasset, Que. It has opened an exchange at Notre Dame de la Paix, on the line of the Little Nation Telephone Co., which connects with the Bell Co.'s system at Papineauville, Que.

An Ottawa despatch states that up to Sept. 30 there had been filed with the Railway Commission over 300 applications for approval of new telephone lines and extensions of existing ones. A large number of the applications come from Manitoba, Saskatchewan and Alberta, where many local lines are being constructed by farmers.

The Telephone Co. of Prince Edward Island is completing extensive improvements upon its system throughout the province. The use of the grounded return is being entirely done away with; additional switchboard accommodation has been provided in Charlottetown office, and other improvements made in the lines in the town. The long distance lines are being made metallic circuits, and a new circuit is being strung from Summerside to Bradalbane, taking in all intermediate points.

Application is being made to the New Brunswick Government for a charter incorporating a company with the title of the Mutual Telephone Co., for the purpose of constructing telephone lines in Victoria, Carleton, York, Sunbury and Queen's counties. The notice is signed by H. L. Ross, Woodstock, N.B., and it is stated that there are associated with him several local people who were shareholders in the old Union Telephone Co., which formed one of the local companies merged in the Central Telephone Co.

The shareholders of the Central Telephone Co., Sept. 26, ratified the agreement of amalgamation with the New Brunswick Telephone Co. The agreement provides for the continuation of the joint businesses under the title of the N.B. Telephone Co., the shareholders of the Central Telephone Co. receiving stock of the N. B. T. Co. at the rate of dollar for dollar of their C. T. Co. stock. The N. B. T. Co.'s shares are to be reduced from $50 each to $10 each, the total number of shares being increased accordingly. The amalgamated company is to have 15 directors, one of whom is to be chosen by the combined shareholders, and directors of the two companies will name seven each of the remaining fourteen.

The Burnaby, B.C., municipal council proposes to take up some questions in dispute with the British Columbia Telephone Co., and if a settlement cannot be obtained, apply to the Legislature for an act curtailing the powers of the company, which in 1903 obtained an act to amend the Vernon and Nelson Telephone Co. Act of 1891. By sec. 5 of the amendment sec. 7 of the principal

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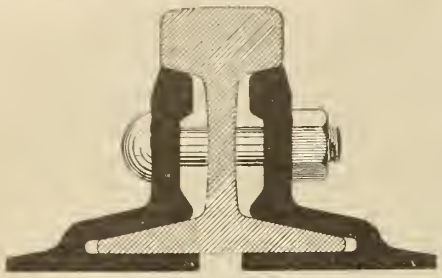

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act was repealed, and a clause substituted by which the company was empowered "to construct, erect, operate and maintain a line or lines of telephone along the sides of, and across or under any highway, streets, public bridges, or in any such places in and throughout the province, as the company from time to time determines. And the company may, by its servants, agents or workmen, enter upon any highway, street or public bridge, or any such place in the province, for the purpose of erecting, operating or maintaining its lines of telephone along the sides of, across, or under the same, and may construct, erect and maintain such and so many poles and other works and devices as the company deems necessary for making and operating their line, and may stretch wires thereon, and from time to time, as often as the company, its agents, officers or workmen, think proper, break up and open any parts of a street or highway." The change sought by the Burnaby council is a curtailment of these powers that will restore to the cities and municipalities complete power and authority over all streets, roads and public facilities.

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T. A. Morrison & Co.....Montreal.
W. H. C. Mussen & Co.....Montreal.
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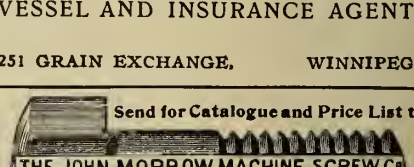

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Owen Sound Wire Fence Co....Owen Sound, Ont.
Page Wire Fence Co.....Walkerville, Ont.

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New Brunswick Wire Fence Co....Moncton, N.B.

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W. H. C. Mussen & Co.....Montreal.

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Chicago Pneumatic Tool Co.....Chicago, Ill.

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Crossen Car Mfg. Co.....Cobourg, Ont.
General Railway Signal Co.....Buffalo, N.Y.
Standard Steel Works.....Philadelphia, Pa.

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McCord & Co.....Chicago, Ill.

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Duner Co.....Chicago, Ill.

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Hose, Fire
The Canadian Rubber Co. of Montreal.

Hose, Suction
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Canada Cycle and Motor Co..Toronto Junc. Ont.

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Eugene Dietzgen Co.....New York.
James Foster.....Toronto.

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John McDougall & Co.....Montreal.

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James Smart Mfg. Co.....Brockville, Ont.

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Kerr Engine Co.....Walkerville, Ont.
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N. L. Piper Railway Supply Co.....Toronto.

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Canada Foundry Co.....Toronto
Locomotive and Machine Co. of Montreal.

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The Canadian Rubber Co. of Montreal.

Packing, Piston
The Canadian Rubber Co. of Montreal.

Paints
Canadian Oil Co.....Toronto.

Paints, Damp Resisting
E. F. Dartnell.....Montreal.

Passenger Cars
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Pinch Bars
The N. L. Piper Railway Supply Co.....Toronto.

Pipe and Pipe Coverings
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Pipe Covering
Canadian Fairbanks Co.....Montreal.
Mica Boiler Covering Co.....Montreal.

Pipe Stocks
Butterfield & Co.....Rock Island, Que.

Piston Rods
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Planers
H. W. Petrie.....Toronto

Ploughs, Contractors'
W. H. C. Mussen & Co.....Montreal
Toronto Pressed Steel Co.....Toronto

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Chicago Pneumatic Tool Co.....Chicago, Ill.
N. J. Holden Co.....Montreal.

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Canada Foundry Co.....Toronto.
Robb Engineering Co.....Amherst, N.S.

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Steel Concrete Co, (Ltd.).....Montreal.

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The Mail Job Printing Company.....Toronto.

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Canada Foundry Co.....Toronto.
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Montreal Steel Works.....Montreal.

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F. H. Hopkins & Co.....Montreal.
J. T. Gardiner.....Chicago, Ill.
J. J. Gartshore.....Toronto.
The Peck Rolling Mills.....Montreal.

Rails (for relaying)
F. H. Hopkins & Co.....Montreal.
J. J. Gartshore.....Toronto.
T. A. Morrison & Co.....Montreal.
W. H. C. Mussen & Co.....Montreal.
Jas. W. Pyke & Co.....Moutreal.

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Continuous Rail Joint Co. of Canada....Montreal.
N. J. Holden Co.....Montreal.

Railway Pile Drivers
F. H. Hopkins & Co.....Montreal.
W. H. C. Mussen & Co.....Montreal.

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Canadian Fairbanks Co.....Montreal.
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The Hiram L. Piper Co.....Montreal.
The N. L. Piper Railway Supply Co.....Toronto.
Rice Lewis & Son.....Toronto.

Rammers, Sand
Chicago Pneumatic Tool Co.....Chicago, Ill

Reamers
W. Abbott.....Montreal.
Butterfield & Co.....Rock Island, Que.

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Chicago Pneumatic Tool Co.....Chicago, Ill.

Recorders, Speed
Chicago Pneumatic Tool Co.....Chicago, Ill.

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Canada Foundry Co.....Toronto.
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Dominion Bridge Co.....Montreal

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O. M. Edwards.....Syracuse, N.Y.

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Montreal Steel Works.....Montreal.

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Cyclopean Iron Works Co.....Jersey City, N.J.

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F. H Hopkins & Co.....Montreal.
W. H. C. Mussen & Co.....Montreal.
Toronto Pressed Steel Co.....Toronto.

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Butterfield & Co.....Rock Island, Que.

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Acton Burrows Limited.....Toronto.

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The N. L. Piper Railway Supply Co.....Toronto.

Ships
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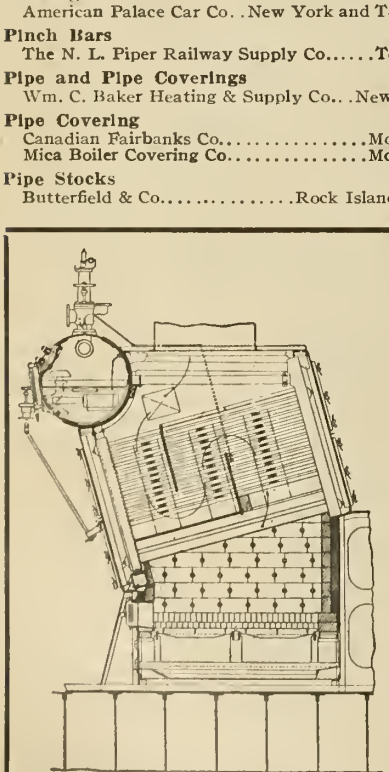

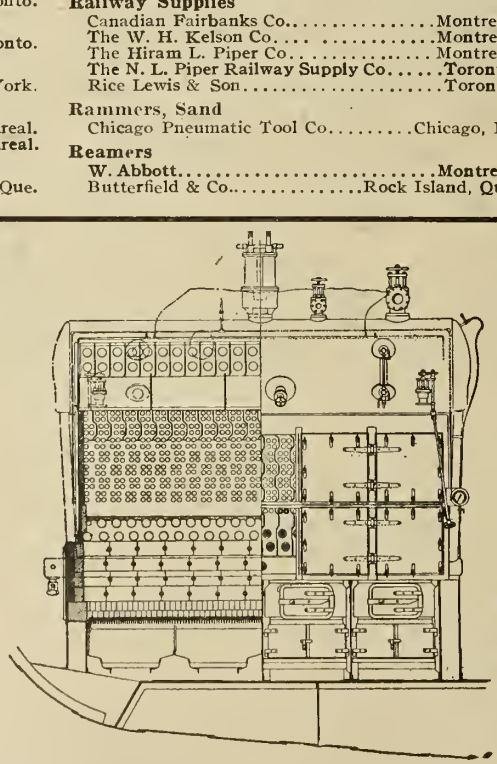

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See Purchasing Agents' Guide on page 773

See Alphabetical Index to Advertisements on page 739.

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TORONTO, CANADA, DECEMBER, 1906.

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Toronto Postal Delivery, $1.25 a Year.

Railway Baggage Problems.

J. E. Quick, General Baggage Agent G.T.R., read the following paper at the recent meeting of the General Passenger and Ticket Agents' Association at Atlantic City:

In accordance with resolution offered by G. T. Bell, G.P. & T.A., Grand Trunk Ry., at the meeting of your Association at Portland, Me., in 1902, I have the honor, as Secretary of the American Association of General Baggage Agents, to be appointed by that body as its representative for this meeting, and to try and lay before you a few facts relative to the advancement of our Association since the last paper presented to you. I will not dwell at any length on the great advancement made during that period regarding the large increase in the revenue of the baggage department and by which the department has advanced from one of protection to one of revenue as well, as such increases have not been caused so much by later requirements and methods, as by the constant care and attention paid to that branch of the department by the general baggage agents with the co-operation of the general passenger departments as well, in fostering the idea of the department becoming more of a revenue earning department than it was in the past, and by cutting off many of the abuses that existed, such as allowing soliciting agents in both the passenger and freight departments the privilege of being granted certain concessions to further their own interests, and thus gain a certain advantage which it has been since demonstrated, was in reality only imaginary and that, in the end, no real benefit was derived and the baggage revenue was unnecessarily sacrificed. The general baggage departments of the several transportation lines are in no way competitive as far as revenue is concerned, and should be allowed to handle the baggage business on strictly business principles, having uniform rules and methods, which they should be instructed to fully adhere to, then by proper care and watchfulness the revenue will keep in accord with the earnings of the passenger department, unless we are victims of too much adverse legislation. As there has been no particular change in the methods of this branch of the service since last report other than increased watchfulness, I will not dwell longer on the revenue side of the question but direct the balance of my remarks to the protective side and as to what has been done to throw more safeguards around this branch of the service, so as to better protect the interests of the transportation lines as well as their patrons. No class of claims connected with the traffic of a great railway are more vexatious to deal with than those arising from the damage to or loss of baggage. It is not the policy of railway companies to repudiate honest and legitimate claims where an actual loss has been suffered, but it is ofttimes amusing to note how pliable the consciences of some people become when they think they have a claim against a railway company, where they assume that the only basis of settlement must be their own statement of what their trunk or valise contained. In loss of freight or express shipments there is usually an invoice of goods showing quality and value, which is of great service when adjustments are being made for loss or damage, but in baggage claims settlements must be made on other lines. The value of baggage carried has increased wonderfully, as has the class of baggage presented for transportation and the style of receptacles in which it is transported has also changed very much. One who has observed travel in all its phases for the last quarter of a century cannot help but observe the better quality of baggage being transported, and to observe the quality and quantity of baggage carried by the average passenger is one of the sure signs of the better times with which the country is being blessed, and is a sure indication of a general prosperity of the people. It is but a few years since the average passenger carried only one trunk, many of them contenting themselves with the old-fashioned satchel or hamper, where now the average tourist requires from one to a dozen receptacles for the carrying of his or her baggage, consisting of wardrobe trunks, dress trunks, hat trunks and boxes, suit cases, dog valises, golf receptacles, etc., and in some instances have trunks and valises constructed for this express purpose grading in value to several hundred dollars.

W. D. ROBB,
Superintendent Motive Power, Grand Trunk Railway.

I quote from a humorous paper read at one of our recent meetings entitled "Claims Legitimate and Claims Fraudulent": "While reading recently a very interesting book entitled 'Dolly Madison,' through which the author treats in a most refreshing vein of the life and characteristics of that beautiful and accomplished lady of the White House, I came upon the inventory of a trunk which a certain bridegroom lost on the the eve of his marriage. I was so impressed with the honest, straightforward appearance of this document that I determined that the members of this Association should have the privilege of hearing it read. It represents 'a modish wedding outfit for a gentlemen in the year 1794,' and is as follows: A light colored broadcloth coat with pearl buttons; breeches of the same cloth; breeches, black satin; vest, swansdown buff, striped; vest, moleskin; chequer-figured vest; satin-figured vest; vest, marseilles white; vest, muslinet figured; undervest, faced with red cashmere; two flannel undervests; one pair flannel drawers; one pair cotton drawers; one pair black patent silk hose; one pair white silk hose; one pair striped silk hose; ten or a dozen white silk hose, three pair of cotton hose; four pair gauze hose; a towel; twelve neckerchiefs; six pocket handkerchiefs, one of them a bandana; a chintz dressing gown; a pair of silk gloves; a pair of old kid gloves." Note the absence of the diamond necklace and the family heirlooms that no money can replace, the unrecorded mortgage and the silver-backed hair brush, all articles without which an inventory of the present time is incomplete. Not even is the wedding ring mentioned, that might most reasonably have reposed in the depths of a pocket of that satin-figured vest. All articles of wearing apparel—baggage pure and simple.

That can be considered as "Claims Legitimate." Look on that picture and on this: "In the spring of 1891 a Russian Hebrew bridal couple with unpronounceable names and two basket hampers arrived at the port of New York, and as they had occupied luxurious apartments in the steerage, were promptly removed to the immigrant clearing house on Ellis Island, from which place they purchased tickets for Chicago, honoring the Lehigh Valley and Grand Trunk railways

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CHARLES MILLER,

PRESIDENT.

with their patronage. So great was their haste to begin their new life in the West that they entirely overlooked their hampers, which they had neglected to identify on the steamship dock. Strange as it may appear, this interesting couple managed to exist for about 15 months without their baggage. Two years elapsed before the case is heard of again, when it is brought to the attention of the railway companies by proceedings in the Chicago courts against the steamship company and themselves to recover the modest sum of $1,500, this being said to be the value of certain articles alleged to have been stolen during the time the hampers were in their possession. As you will see from the inventory that follows this immigrant baggage did not consist of the customary bag of feathers and assorted cooking utensils so familiar to our sight, but comprised articles fitted to a much higher scale of civilization than that to which the average steerage passenger is accustomed. The articles missing were a part of their 'wedding outfit,' as the claimants expressed it, and included: 72 sheets, 48 towels, 12 table cloths, 12 underskirts, 24 drawers, 24 handkerchiefs, 18 assorted clothing for little children, both for boys and girls; 24 silver spoons, 24 silver knives, 24 silver forks, 12 silver teaspoons, 1 silver plate, 2 pairs silver candelabra, 7 wool dresses, 4 silk dresses, 2 china silk tea gowns, 2 plush jackets, 2 long fur capes, 2 cloaks, and 2 fur muffs.

There is a trousseau that no one need be ashamed of. Observe the forethought of this worthy bridal couple in providing infants' wearing apparel for both sexes; observe also the candelabra and the silver dish, articles that no immigrant should be without. Notwithstanding all the foregoing, and the fact that the records of all roads interested showed this baggage was transported from New York to Chicago in good condition, the railway company was found by this Illinois court to be liable in the sum of $1,320." This is my idea of a fraudulent claim, magnificently conceived and successfully carried through.

This is not an overdrawn picture of claims presented in the past, and the general run of claims as often presented nowadays. It is especially the greatly increased valuation of baggage carried by the average passenger that has caused our Association to consider the question very closely, and try and devise means to protect the lines we represent from such exorbitant claims. It is but a few years ago that we could settle the majority of claims within amounts specified on the limitation clause printed on coupon tickets of many of the lines, which limitation value was in some cases $50, in others $100, and in a few cases $130, but the $100 limitation clause was the most universal, but nowadays it is no unusual thing to have filed claims on one lot of personal baggage to the extent of from $1,000 to $5,000, and the question that is now before us is, can a railway company successfully limit its liability for baggage and still do so in a manner fair and just to the passenger? As before stated nearly all tickets issued we find have printed on them a clause limiting the liability of a carrier for baggage to a certain specified sum, but I ask you is it fair to arbitrarily compel a passenger with baggage of much greater value than the amount specified to sign his name as acknowledgment that he agrees to such a clause. A ticket carries with it the right to have transported without charge 150 lbs. of baggage. This baggage may be valued at $100 or it may be worth its weight in gold, no question as to its value ever raised. Is it reasonable, therefore, for that passenger to ask or expect a railway company to become responsible without extra compensation for baggage of unusual value? Would an insurance company insure goods according to their weight regardless of their value? They certainly would not; then why should a railway company be asked to do so? Years ago railways discovered that a single trunk and contents weighing 150 lbs. can be worth $100. It is but a matter of course, therefore, that they try to protect themselves from such unfair and unjust claims by printing clause on the ticket; but is there not a better way to accomplish the same purpose? Should the railway assume an increased responsibility without an increased compensation. We are today charging no more for transporting a passenger with $50 worth of baggage than for transporting one with $5,000 worth. Is not now a good time to establish a grading scale of liability in accordance with value estimated by owner, and the charge made for the increased liability? It has so seemed to the majority of the members of our Association, and recommendations have been made in the last two years to the different territorial passenger associations presenting suggested rules as to liability, but, so far, have been made effective only in a few of the territories. At the meeting of our Association at Cleveland in June, 1905, this matter was brought to the attention of members present, and after discussion was referred to a committee, which, after mature deliberation and at a subsequent meeting, submitted a report as follows:

"Whereas, it has been our experience that the present clause in many forms of contract tickets arbitrarily limiting the value of baggage to $100 has proven unsatisfactory and of little value in the adjustment of baggage claims, in that the passenger is not given any option or privilege of declaring greater value upon his property. We would therefore recommend that in lieu of the present baggage-liability clause, the following be printed on all forms of contract tickets: 'This ticket entitles the purchaser to the free carriage of his baggage consisting of wearing apparel, provided same does not weigh more than 150 lbs., or does not exceed $100 in value. Excess in weight or declared value will be charged for at current tariff rates.' We find that many lines now have a clause in contract of passage ticket of similar meaning to the above, and that in fairness to our patrons and to make the contract reasonably effective, we think there should be submitted in connection with it the following rule for the guidance of baggagemen when a passenger expresses a desire to stipulate the value of his baggage at a greater sum than $100: 'When a passenger stipulates for a greater sum than $100 to be paid in case baggage is injured or lost the charge for the increased valuation will be one-half of the current excess baggage rate for 100 lbs. excess baggage, for each $100 or fraction of $100 of increased value stipulated. Excess baggage checks must be issued for collections made on this account."

This report was adopted with but one dissenting voice, and it is the recommendation of that committee that I respectfully lay before you for your careful consideration. Then item 11 of the Secretary's call for this meeting is laid before you, and I sincerely hope that you will see your way clear to approve of same, and arrange to have it become effective on all lines represented in this Association. It certainly is not as arbitrary a rule as the present limitation clause on tickets of many of the transportation lines where they arbitrarily state they will not be responsible for baggage exceeding $100 in value. This proposed rule gives the passenger an opportunity to insure his baggage for any value he may wish to state on same, providing he is not willing to take a risk of $100 valuation. While there is a doubt in the minds of some of the members as to the probability of such a rule being sustained in the courts, it was contented on the other hand that the same arguments would apply for adopting a rule of this nature as were given for the adoption of rule 2 in the uniform rules of the American Association as adopted at the St. Louis meeting in 1904, which reads as follows:

"Trunks, valises, telescopes, travelling bags, medium-sized boxes (containing personal effects and provided with suitable handles), sailor and emigrant bags which are not securely locked, will not be received or checked except with the understanding that no liability will be assumed for loss of articles therefrom."

It being to the effect that the transportation lines could give notice that they would not be responsible for the contents of baggage that was not properly secured by locks, that it was to the interest of the transportation lines to establish a reasonable and fair release governing all such matters, and thereby beneficially establishing a custom that might reasonably be expected to be sustained in a court of equity. This rule became an imperative necessity on account of the great increase in the number of so-called telescopes which are presented for checking which are entirely unsecured by locks or fastenings, and the numerous claims which arose for goods alleged to have been abstracted from these receptacles. This rule has been adopted by the several territorial passenger associations as well as by the American Association of General Baggage Agents, is generally publicly posted in rules at stations, is being printed on the back of duplicate checks of many of the lines, and is being generally adhered to today, and will undoubtedly soon become an established rule that will, without difficulty, be enforced and successfully sustained in the courts, and if this limitation liability rule as recommended by our Association is adopted, it will also undoubtedly soon become a universal rule, and one in every way agreeable to the public, and can be sustained in the courts. The above regulations were so apparently beneficial that it was not difficult to arrive at a unanimous understanding or agreement regarding them in our Association, which, I am sorry to state, has not been the case in another subject that has been before our Association, and which is listed for discussion at your meeting in item 14, viz.: proposed checking of corpses interterritorial. The members of our Association are very much divided on this subject, although at the last meeting at Los Angeles in March last, a resolution was passed that the movement of a corpse under check was preferable to the old plan. The resolution was carried by practically a vote of western lines as against eastern lines, and it is not considered as being a fair test vote of the Association in general, as the eastern lines, on account of the great distance, were not fully represented, and the matter practically stands where it did before the resolution was passed, and the checking of corpses is confined to lines west of Chicago and St. Louis. It is hoped and expected that the members may yet find a halfway measure or agree on a compromise arrangement, as it certainly does not appear consistent that a certain system can prevail on lines in the west and not on lines in the east.

Another subject that the Association has not as yet been able to reach a unanimous conclusion on is the use of string checks vs. brass plates. There seems to be such a divergence as to the practibility and different results as shown on different lines. However, the matter was held in abeyance with the recommendation that such lines as find it to their advantage to continue to use string checks be requested to have them of such shape, form and color as would readily distinguish them from string checks

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of transfer companies and shipping tags of express companies, which are so often left on baggage when being forwarded, thus adding confusion and making errors so liable.

The inauguration of a universal system of checking baggage for special delivery to hotels, residences and stations at the larger cities is a subject that is not before us. Several of the larger lines have adopted an individual system from stations on their own lines, but the general adoption of what is undoubtedly a coming innovation has yet to be reached. Its benefits to both the public and transportation lines are fully established, but it is yet for our Association to agree on a universal method for carrying out the principle involved.

This, and the perfecting of other advanced methods for the proper care and handling of the baggage service is a work yet before us and which we hope to accomplish by our united efforts and the interchange of views at our annual meetings where we derive benefit from personal intercourse and exchange of ideas pertaining to the details of the baggage department. These benefits will, of course, be in exact proportion to the amount of interest taken by the representatives of the different lines and the amount of study and thought devoted to the subject. That the field of our operation is constantly widening and that the necessity for study and watchfulness is certainly increasing does not, it seems to me, admit a question, and I bespeak for the Association that I have the honor to represent additional efforts on the part of all its members and that each member feels a sense of personal responsibility to do what in him lies to promote the success of the Association as well as the department that he is the head of.

Orders by the Railway Commissioners.

The following orders have been issued by the Board of Railway Commissioners:

1689. Sept. 12.—Authorizing the Commissioners of the Trans-Continental Ry. to join the C.P.R. tracks (Quebec and Montreal branch) with the National Trans-Continental Ry. tracks at St. Basile, Que.

1690. Sept. 12.—Authorizing the Commissioners of the Trans-Continental Ry. to join the C.P.R. tracks (Quebec and Montreal branch) with the National Trans-Continental Ry. at Belair, Que.

1691. Sept. 19.—Sanctioning revised location of C.P.R. (Yahk branch) from near Yahk, B.C., to the International boundary from mileage 0 to mileage 8.57.

1692. Sept. 19.—Sanctioning the location of the C.P.R. from sec. 14, tp. 18, r. 2 e.p.m., to the northern boundary of sec. 35, tp. 19, r. 2 e.p.m., Manitoba.

1693. Sept. 19.—Sanctioning location of C.P.R. Moose Jaw Branch, mileage 35.02 to 78.5.

1694. Sept. 19.—Sanctioning revised location Canadian Northern Ontario Ry. through Longueuil tp., Prescott, mileage 4 to 8, Hawkesbury West.

1695. Sept. 19.—Sanctioning revised location C.P.R. Pheasant Hills branch, sec. 36, tp. 36, r. 16, w. 3rd m., to sec. 17, tp. 40, r. 20, w. 3rd p.m., Saskatchewan.

1696. Sept. 19.—Sanctioning revised location C.P.R. Pheasant Hills branch from mileage 328 to 330.5, town of Saskatoon Sask.

1697. Sept. 19.—Sanctioning revised location C.P.R. Pheasant Hills branch, from mileage 455 to 469.3, Saskatchewan.

1698. Sept. 19.—Sanctioning location C.P. R. Pheasant Hills branch, mileage 469.8 to 495.7.

1699. Sept. 19.—Sanctioning location of C.P.R. Pheasant Hills branch, mileage 495.7 to 556.2, and revised location from mileage 531 to 556.2.

1700. Sept. 20.—Sanctioning location Georgian Bay and Seaboard Ry. from lot 12, con. 5, tp. Emily, to the road between counties of Victoria and Peterboro in lot 23, con. 4, tp. Emily, co. Victoria, Ont., mileage 84 to 89.

1701. Sept. 20.—Sanctioning location Georgian Bay and Seaboard Ry. from lot 11, con. 8, tp. Eldon, to lot 26, con. 5, Ops tp., co. Victoria, Ont., through Mariposa and Fenelon tps., mileage 58 to 70.

1702. Sept. 20.—Sanctioning revised location Georgian Bay and Seaboard Ry. from lot 2, con. 11, Tay tp., through portion of Medonte tp., to lot 14, con. 2, north Orillia tp., co. Simcoe, Ont., mileage 16.8 to 17.4.

1703. Sept. 21.—Sanctioning deviation of C.P.R. Atlantic and North-West Ry., in Magog, Que., from 300 ft. westerly of Magog station, north-westerly about 9,000 ft. west of station.

1704. Sept. 21.—Authorizing Bell Telephone Co. to erect wires across G.T.R. tracks at public crossing first road east of line between Barton and Saltfleet, 4 miles e. of Hamilton station, Ont.

1705. May 8.—Authorizing Niagara, St. Catharines and Toronto Ry. to carry its lines, at rail level, along certain highways in Thorold, Ont.

1706. Sept. 21.—Authorizing the Commissioners of the Trans-Continental Ry. to cross the C.P.R. tracks with the National Trans-Continental Ry. tracks, by an overhead crossing near Rennie station, Man.

1707. Sept. 24.—Authorizing the C.P.R. to construct its Toronto-Sudbury branch through Bala, Ont.

1708. Sept. 24.—Authorizing the James Bay Ry. to construct a bridge over the north channel of the Maganetawan River, Ont., mileage 39.5, Parry Sound north.

1709. Sept. 24.—Approving plan and profile of C.P.R., lessee of Tillsonburg, Lake Erie and Pacific Ry., of bridge 31.07 Port Burwell branch, showing proposed filling of bridge, and providing 20 ft. arch for roadway, and 14 ft. arch for stream crossed.

1710. Sept. 24.—Authorizing the C.P.R., lessee of the Tillsonburg, Lake Erie and Pacific Ry. Co., to construct a highway across its line in lieu of existing highway between cons. 2 and 3, Bayham tp., Ont.

1711. Sept. 24.—Authorizing the G.T.R. to construct an additional track across Charlevoix St., Point St. Charles, Montreal.

1712. Sept. 24.—Approving location of Great Northern Ry. of Canada, St. Jerome-Montfort branch, in Argenteuil co., St. Sauveur to Morin Flats, Que., mileage 19.02 to 20.02.

1713. Sept. 21.—Approving proposed changes in C.P.R. bridge crossing Ottawa River at Vaudreuil, Que., to provide for a double track.

1714. Sept. 24.—Authorizing the C.P.R. to construct an additional track across the following highways: Tecumseh Road, Dougall Ave., and McDougall Road, tp. S.W.; Talbot and Windsor gravel road, and the road allowance for road west of Walkerville Junction, on lot 96, 1st con., tp. S.E., Ont.

1715. Sept. 24.—Authorizing the G.T.R. to construct a branch line or siding, and spurs therefrom, north of Lincoln St., Welland, to M. Beatty & Sons' premises.

1716. Sept. 21.—Authorizing the C.P.R. to construct a branch line or spur at Ninga station to the Ninga Milling Co.'s property.

1717. Sept. 21.—Authorizing the C.P.R. to construct a branch line or spur from Higgins Ave., Winnipeg, to the Manitoba Iron Works.

1718. Sept. 21.—Authorizing the C.P.R. to construct two branch lines or spurs from the Kimberly branch to the North Star Lumber Co.'s Mill, East Kootenay, B.C.

1719. Sept. 25.—Authorizing the G.T.R. to construct a branch line from Common St., Montreal, to the Ross property between McGill and Grey Nun Streets.

1720. Sept. 26.—Approving plan of new bridge to be constructed by G.T.R. across River Thames at mileage 121.24, west of London, Ont.

1721. Sept. 26.—Authorizing the G.T.R. to construct a branch line to Goldie's Mills, Guelph, Ont., thence to the Crow Iron Works.

1722. Sept. 26.—Sanctioning location of the G. T. Pacific Ry., mileage 77.619 to 112.-942, Alberta.

1724. Sept. 26.—Approving interlocking plant at Fargo, Ont., where the Michigan Central Rd. crosses the Pere Marquette Rd.

1725. Sept. 26.—Authorizing J. Kelly, of Durham, Ont., to lay waterpipe to Durham Furniture Co.'s premises, under the G.T.R. tracks at Lambton St., Durham, Ont.

1726. Sept. 26.—Authorizing the City of Brantford, Ont., to carry a sewer pipe under the G.T.R. tracks at West St., Brantford.

1727. Sept. 27.—Authorizing W. W. Broughton, of St. Paul, Minn., G.F.A. Brandon, Saskatchewan and Hudson Bay Ry., to prepare and issue tariffs of tolls to be charged.

1728. Sept. 27.—Authorizing W. N. Warburton, Gen. Mgr. Chatham, Wallaceburg and Lake Erie Ry., to prepare and issue tariffs of tolls to be charged.

1729. Sept. 27.—Authorizing A. McPherson, of Longford, Ont., to carry a telephone wire, during the summer months, to his cottage on Lake Couchiching, across the G.T.R. tracks.

1730. Sept. 27.—Authorizing A. L. Craig, of St. Paul, Minn., G.P.A. of the Brandon, Saskatchewan and Hudson Bay Ry., to prepare and issue tariff of tolls to be charged.

1731. Sept. 28.—Authorizing the C.P.R. to construct new concrete abutments to replace timber abutments under Howe truss span at bridge 13.5, Gibson branch, N.B.

1732. Sept. 28.—Authorizing the C.P.R. to construct a branch line at Elbow, from the main line of the Calgary and Edmonton Ry. to the Brackman & Ker Milling Co.'s premises.

1733. Sept. 28.—Authorizing the C.P.R. to construct a branch line at Spring Hill, co. Compton, Que., to the Lake Megantic Pulp Co.'s premises.

1734. Sept. 26.—Confirming location of C.P.R. Toronto-Sudbury line through Alliston, Ont.

1735. Sept. 28.—Authorizing the C.P.R. to cross the Montreal St. Ry. at Shearer and Church streets, Montreal.

1736. Sept. 28.—Approving amended located line of G.T. Pacific Ry., mileage 49.197 to 100.271, Assiniboine district, Sask.

1737. Sept. 28.—Authorizing the Town of Sarnia, Ont., to carry a suction pipe under G.T.R. tracks on George St.

1738. Sept. 28.—Authorizing the Manufacturers Natural Gas Co. to lay a gas main under the G.T.R. tracks at Hamilton and Caledonia stone road, Seneca tp., Haldimand co., Ont., or Argyle Ave., Caledonia, Ont.

1739. Sept. 28.—Authorizing the Manufacturers' Natural Gas Co. to lay a gas main under the G.T.R. tracks on the town line between the townships of Rainham and Walpole, Haldimand county, Ont.

1740. Sept. 28.—Authorizing the City of Stratford to lay a waterpipe under the G.T.R.

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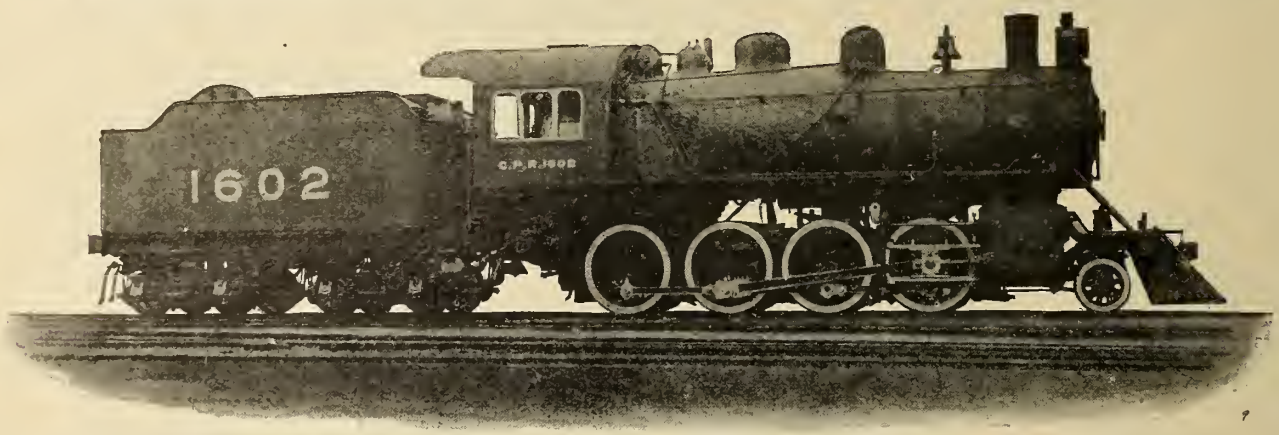

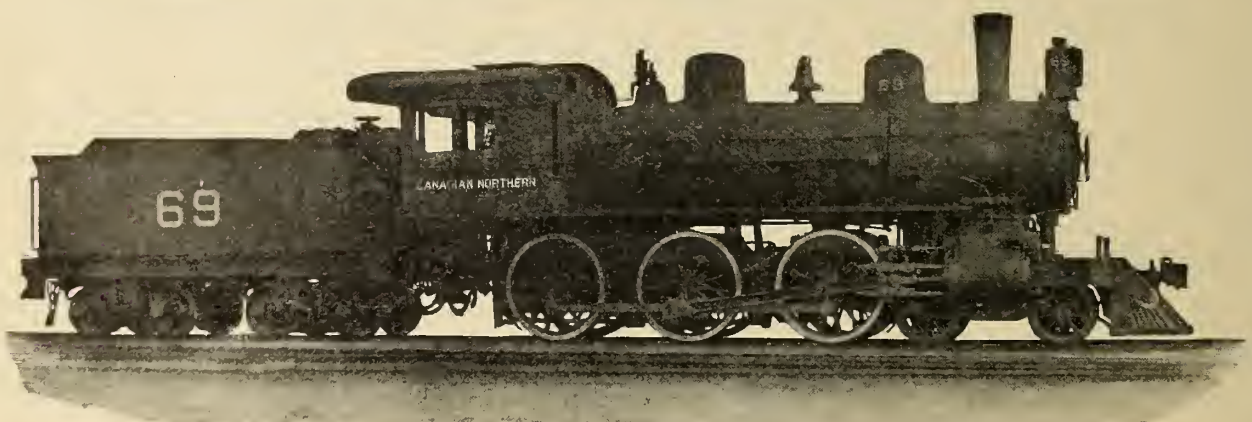

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1741. Sept. 28.—Authorizing the Ottawa Electric Ry. Co. to cross with its tracks by means of an overhead bridge the Canada Atlantic Ry. tracks at Bell St., Ottawa, Ont.

1742 to 1784, inclusive.—Bell Telephone crossings.

1785. Sept. 22.—Directing precautions to be used by the C.P.R. in regard to operation of swing bridge crossing the Assiniboine River, Headingly, Man.

1786. Sept. 22.—Appointing H. A. K. Drury, one of the engineers of the Board, to inquire into and report the causes of, and circumstances connected with, any accident or casualty of life or property occurring on any railway, and all particulars relating thereto, and all matters and things likely to cause or prevent accidents on railways.

1787. Sept. 22.—Authorizing the G. T. Pacific Ry. to cross the C.P.R. tracks at sec. 31, tp. 13, range 25, w. 1st p.m., Shoal Lake, Man.

1788. Oct. 1.—Transferring operation of interlocking plant, etc., at crossing of C.P.R. near Fernie by the Morrissey, Fernie and Michel Ry., to the C.P.R.

1789. Sept. 26.—Authorizing the James Bay Ry. to construct bridge over south channel of the Maganetawan River, mileage 35, from Parry Sound, Ont., north.

1790. Sept. 28.—Sanctioning certain proposed deviations on the main line of the James Bay Ry., through Foley tp., between mileage 7 and mileage 11.10, from Parry Sound, Ont., south.

1791. Sept. 28.—Authorizing the G.T.R. to construct a siding from south of Fraser St., Port Colborne, Ont., across Fraser St. to Augustine & Son's premises.

1792 to 1809, inclusive. Bell Telephone crossings.

1810. Oct. 20.—Authorizing the St. Maurice Valley Ry. to cross the Great Northern Ry. tracks by an underground crossing at Shawinigan Falls, Que.

1811. Sept. 22.—Authorizing the Canadian Northern Ry. to take for terminal facilities and yard and station space certain lands in Winnipeg, the property of T. D. Robinson, W. A. Taylor, and others.

1812. Aug. 26.—Approving of standard freight and passenger tariffs of the Klondike Mines Ry.

1813. Undated.—Authorizing the Klondike Mines Ry. Co. to open for traffic its railway from Dawson to Bonanza, Yukon.

1814.—Aug. 22.—Authorizing J. Hardwell, Chief Traffic Officer of the Board, to take evidence in Alaska in the complaint of the Dawson Board of Trade that tolls charged upon through traffic, carried over the British Yukon Ry., and lines connecting to points in Yukon Territory, are unjust and unreasonable.

1815. Oct. 1.—Authorizing the St. Maurice Valley Ry. to construct its line across the highway at Shawinigan Falls, Que., by means of an undercrossing, and for that purpose to divert the highway.

1816. Oct. 2.—Authorizing the Canadian Northern Quebec Ry. to change widths of right of way and station grounds at Shawbridge station, Que.

1817. Oct. 2.—Sanctioning located line of the Canadian Northern Ontario Ry. through Hawkesbury, Ont., between mileage 0 and 1.2, Hawkesbury West.

1818. Oct. 2.—Approving by-law 24 of the G.T.R.

1819. Oct. 2.—Authorizing the Canadian Northern Ry. to construct a bridge over Mullin River (an outlet of Crooked Lake), Cox. tp., Nipissing dist., Ont.

1820. Oct. 3.—Authorizing the Canadian Northern Ontario Ry. to construct a bridge over the Vermilion River, Capreol tp., Nipissing district, mileage 12.7 Sudbury Jct. North.

1821. Oct. 3.—Authorizing the Canadian Northern Quebec Ry. to construct a bridge over Riviere du Nord on the St. Jerome-Montfort section of its line, at mileage 6.5 St. Jerome North.

1822.—Bell Telephone Co. crossing order.

1823. Oct. 3.—Authorizing the Canadian Northern Quebec Ry. to construct a bridge over the Riviere du Nord, St. Jerome, Que., mileage 12.2, St. Jerome Jct. North.

1824. Oct. 3.—Authorizing the Canadian Northern Ontario Ry. to construct a bridge over Little Key River, Ont., being bridge no. 34 on the Northern Division of its Ry.

1825. Oct. 3.—Authorizing the Canadian Northern Quebec Ry. to construct a bridge over Riviere du Nord, on the St. Jerome-Montfort line, 10.5 miles north of St. Jerome.

1826. Oct. 3.—Sanctioning location of Niagara, St. Catharines and Toronto Ry. from a junction with the Toronto, Hamilton and Western Ry., in lot 158, Thorold tp., to near Welland canal feeder in lot 27, con. 7. Crowland tp., Welland co., Ont.

1827. Oct. 3.—Authorizing the Atlantic, Quebec and Western Ry. to construct a bridge over the Shigiwake River trestle at mileage 11, Hope tp., Que.

1828. Oct. 3.—Approving of standard Freight Tariff C.R.C. 1, of the Chatham, Wallaceburg and Lake Erie Ry.

1829. Oct. 4.—Authorizing the G.T.R. to construct a siding from the Central Vermont Ry. near its junction with the G.T.R., east of St. Lambert station, Que., to lot 261, St. Antoine de Longueuil.

1830.—Bell Telephone Co. crossing order.

1831. Oct. 1.—Authorizing the Toronto and Niagara Power Co. to erect wires over the Toronto, Hamilton and Buffalo Ry. tracks at Escarpment, Hamilton, and at Vinemount, Ont.

1832. Oct. 1.—Authorizing the Toronto and Niagara Power Co. to erect wires over G.T.R. tracks at Davenport Road, Toronto; west of Bronte; at Stony Creek, and on the G.T.R. Welland Division, near Allanburg, Ont.

1833. Oct. 1.—Authorizing the Toronto and Niagara Power Co. to erect its wires across the C.P.R. tracks at Lambton Park, and north of Toronto Junction, Ont.

1834. Oct. 4.—Approving of the deviation of the C.P.R. branch line on the south side of the Lachine Canal, Town of St. Paul, Que.

1835.—Not issued yet.

1836. Oct. 5.—Authorizing the C.P.R. to open for public traffic the Lauder extension.

1837. Oct. 5.—Authorizing the C.P.R. to open for public traffic the Reston-Wolseley line.

1838. Oct. 5.—Authorizing the C.P.R. to open for public traffic the Moose Jaw branch.

1839. Oct. 5.—Authorizing the C.P.R. to open for public traffic a portion of its second track between Murillo and Neebing, West Fort William, Ont.

1840. Oct. 5.—Authorizing the G.T.R. to carry the public highway east of St. Bruno station near mileage 15, on the line between St. Lambert and Richmond, Que., across the railway tracks by means of an overhead bridge.

1841.—Bell Telephone Co. crossing order.

1842. Oct. 10.—Authorizing the C.P.R. to open for traffic the Palliser tunnel, west of Palliser station, on the main line in B.C.

1843. Oct. 9.—Authorizing the G.T.R. to construct a siding from half a mile south of Davenport station to premises of Matthew Bros., and Wilson & Co., with spurs crossing Sterling Road to the premises of Cowan & Co., Lytle & Co., and Naismith & Co., Toronto, Ont.

1844.—Bell Telephone Co. crossing order.

1845. Oct. 4.—Authorizing the Chatham, Wallaceburg and Lake Erie Ry., to cross at grade the G.T.R. tracks where the same intersect William St., Chatham, Ont.

1846. Oct. 10.—Approving revised location of G.T. Pacific Ry. from e. line of tp. 36 n., r. 11 w., to the w. line of tp. 35 n., r. 13, w. 3rd m., mileage 34.541 to 53.905, Saskatchewan.

1847. Oct. 10.—Approving of located line of the G.T.Pacific Ry. from e. line of tp. 35, n., r. 14 w., to w. line of tp. 36 n., r. 15, w. 3rd m., mileage 53.805 to 68.269, Saskatchewan.

1848. Oct. 10.—Authorizing the Dominion Natural Gas Co. to lay a gas main under the G.T.R. tracks where they cross road allowance between cons. 3 and 4, Woodhouse tp., Norfolk co., and Norfolk St., Simcoe, Ont.

1849. Oct. 10.—Authorizing the Ontario Pipe Line Co. to lay 24 gas mains under G.T.R. tracks at different points in Hamilton, Ont.

1850. Oct. 11.—Directing precautions to be used by the C.P.R. in regard to operation of swing bridge crossing the Assiniboine River, in Headingly, Man.

1851. Oct. 11.—Authorizing the C.P.R. to construct a spur in London, Ont., from its main line to the London Asylum, together with a siding 260 ft. long from the spur.

1852. Oct. 10.—Authorizing the Manufacturers' Natural Gas Co. to lay a gas pipe over G.T.R. tracks at Catharine St , Hamilton, Ont.

1853. Oct 11.—Authorizing the Algoma Central and Hudson Bay Ry. to construct the Loon Lake branch from its main line mileage 23.716 from Sault Ste. Marie to Loon Lake, Algoma, Ont.

1854. Oct. 10.—Authorizing the C.P.R. to construct a branch line at North Byng Inlet, Ont.

1855. Oct. 10.—Authorizing the C.P.R. to construct a number of sidings as a yard for the Canadian American Coal and Coke Co., at Frank, Alta.

1856. Oct. 10.—Authorizing the C.P.R. to construct a bridge across the valley of the Seguin River, Ont.

1857. Oct. 10.—Authorizing the Cascade Water, Power and Light Co. to erect electric power lines across the C.P.R. tracks near Phœnix, B.C.

1858. Oct. 10.—Authorizing the Manufacturers' Natural Gas Co. to lay a gas main under the G.T.R. tracks at Ferrie St. and Sherman Ave., Hamilton, Ont.

1859. Oct. 10.—Sanctioning deviation of located line of the Canadian Northern Ontario Ry. from French River to Wahnapitae, mileage 67.8 to 107.8 north from Parry Sound, Ont.

1860. Oct. 10.—Approving of reduction and alteration of grade of the G.T.R. southerly from Argyle St. to south of Antrim St., Peterborough, Ont.

1861.—See Nov., pg. 653.

1862.—See Nov., pg. 653.

1863.—See Nov., pg. 653.

1864. Oct. 13.—Amending order of the Board, dated Oct. 6, 1905, providing for the protection of Albert St., Regina, Sask., where it crosses the C.P.R., and for the opening of Hamilton St.

In remitting his annual subscription, T. C. Burpee, Engineer of Maintenance, Intercolonial Ry., Moncton, N.B., who has taken the paper for a number of years, says: "I am much pleased with THE RAILWAY AND MARINE WORLD."

J. A. McANDREW. W. S. CALVERT, M.P. GEO. S. MAY, M.P.P. F. B. POLSON. A. ARDAGH.
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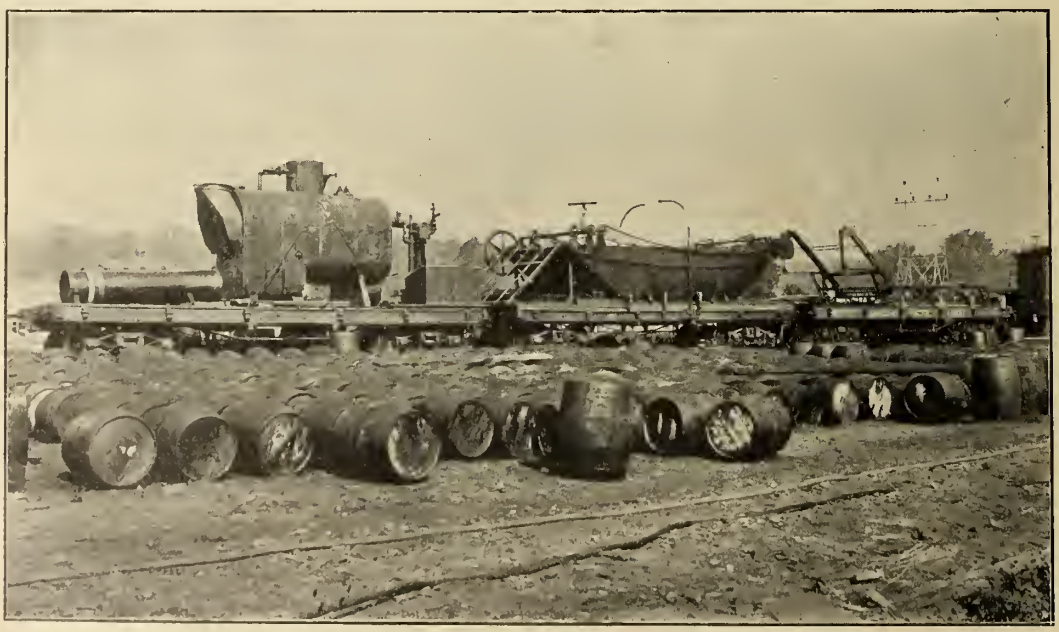

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December Birthdays.

Many happy returns of the day to—

A. H. Anderson, Cashier, Paymaster, and Purchasing Agent, Quebec Central Ry., Sherbrooke, Que., born at Cookshire, Que., Dec. 19, 1859.

J. H. Barber, Division Engineer, C.P.R., Montreal, Que., born at Cobourg, Ont., Dec. 20, 1856.

E. T. Boland, Western Agent Robt. Reford Co., Toronto, born there, Dec. 20, 1869.

N. E. Brooks, C.P.R. Division Engineer, Calgary, Alta., born at Sherbrooke, Que., Dec. 25, 1866.

J. C. M. Buntzen, Managing Director British Columbia Electric Ry. Co., London, Eng., born at Copenhagen, Denmark, Dec. 16, 1859.

W. W. Butler, 1st Vice President Simplex Railway Appliance Co. of Canada, and Dominion Steel Car Co., born at Danville, Ohio, Dec. 9, 1862.

Capt. G. C. Coles, of F. W. Churchill & Co., C.P.R. Ticket Agents, Collingwood, Ont., born at Biddlestone Rectory, Wiltshire, Eng., Dec. 15, 1859.

P. E. Demers, Trainmaster Central Vermont Ry., Farnham, Que., born there Dec. 10, 1859.

W. N. Dietrich, Electrical Engineer C.P.R., Montreal, born at Perth, Ont., Dec. 23, 1872.

J. W. Donald, District Passenger Agent, Chicago and Alton Rd., Detroit, Mich., born at St. John, N.B., Dec. 22, 1857.

H. P. Dwight, President Great Northwestern Telegraph Co., Toronto, born at Belville, Jefferson Co., N.Y., Dec. 23, 1828.

R. Forget, M.P., President Richelieu and Ontario Navigation Co., Montreal, born at Terrebonne, Que., Dec. 10, 1861.

P. Gifkins, General Manager Dominion Atlantic Ry., Kentville, N.S., born at Harpenden, Herts., England, Dec. 25, 1850.

H. H. Gildersleeve, Manager Northern Navigation Co. of Ontario, Collingwood, born at Kingston, Ont., Dec. 15, 1865.

A. J. Gorrie, General Superintendent Canadian Northern Quebec Ry., Montreal, born at Raith, Kirkcaldy, Scotland, Dec. 10, 1868.

D. B. Hanna, Third Vice-President Canadian Northern Ry., Toronto, born at Thornliebank, Scotland, Dec. 20, 1858.

S. P. Howard, General Freight Agent Eastern and Lake Superior Divisions C.P.R., Montreal, born there, Dec. 30, 1865.

R. R. Jamieson, General Superintendent Western Division C. P. R., Calgary, Alta., born at Westover, Ont., Dec. 12, 1856.

B. B. Kelliher, Chief Engineer Grand Trunk Pacific Ry., Montreal, born in Ireland, Dec. 26, 1862.

W. Kennedy, Master Mechanic Middle Division G.T.R., Toronto, born at Belleville, Ont., Dec. 23, 1869.

L. Macdonald, Division Freight Agent G.T.R., Hamilton, Ont., born at Montreal, Dec. 10, 1871.

J. T. McGrath, Master Mechanic G.T.R., Fort Gratiot, Mich., born at Toronto, Dec. 6 1869.

L. McLean, Superintendent Sydney and Louisburg Ry., Glace Bay, N.S., born there, Dec. 10, 1867.

J. Niblock, Superintendent C.P.R., Calgary, Alta., born in York county, Ont., Dec. 21, 1849.

E. C. Oviatt, Travelling Passenger Agent, C.P.R., Battle Creek, Mich., born at Hudson, Ohio, Dec. 3, 1852.

J. V. Paul, Locomotive Fuel Inspector C.P.R., Montreal, born at Mokelumne Hill, Cal., Dec. 29, 1863.

A. Price, Superintendent of Transportation Western Lines, C P.R., Winnipeg, born at Toronto, Dec. 6, 1861.

C. Schrieber, C.M.G., Consulting Engineer Department of Railways and Canals, Ottawa, Ont., born at Bradwell, Essex, Eng., Dec. 14, 1831.

F. P. Smith, Secretary Richelieu and Ontario Navigation Co., Montreal, born there, Dec. 23, 1873.

C. E. E. Ussher, General Passenger Agent C.P.R. Eastern Lines, Montreal, born at Niagara Falls, Ont., Dec. 29, 1857.

H. H. Vaughan, Assistant to Vice-President C.P.R., Montreal, born at Forest Hill, Essex, England, Dec. 26, 1868.

B. D. Webber, General Manager Canadian Pacific Despatch, Boston, Mass., born at Beverly, Mass., Dec. 3, 1851.

W. Wood, locomotive foreman, C.P.R., Meganic, Que., born at Montreal, Dec. 6, 1863.

Canadian Northern Ry. Earnings, etc.

Gross earnings, working expenses, net profits, increases or decreases over 1905-06, from July 1, 1906:

	Earnings.	Expenses.	Net Earnings.	Increase or Decrease.
July..	$ 603,800	$ 397,900	$ 205,900	$ 63,400+
Aug..	594,900	402,800	192,100	80,400+
Sept..	624,400	417,800	206,600	96,400+
	$1,823,100	$1,218,500	$ 604,600	$240,200+

Approximate earnings for Oct., $815,100, against $557,100 for Oct., 1905.

C.P.R. Earnings, Expenses, etc.

Gross earnings, working expenses, net profits, increases or decreases over 1905-6, from July 1, 1906:—

	Earnings.	Expenses.	Net Profits.	Increase or Decrease.
J'ly	$5,967,967.82	$3,596,156.74	$2,371,811.08	$734,033.42+
Aug.	6,170,452.27	3,707,873.07	2,462,579.20	670,933.29+
Sept.	6,152,767.15	3,714,835.52	2,437,931.63	661,921.58+
	$18,291,187.24	$11,018,865.33	$7,272,321.91	$2,066,888.29+

Approximate earnings for Oct., $6,918,000 against $5,703,000 for Oct., 1905.

Duluth, South Shore and Atlantic Ry.—Gross earnings for Sept., $292,955.10; net earnings. $105,847.59 against $275,443.11 gross and $109,334.95 net for Sept., 1905. Net earning for three months ended Sept. 30, $342,497.89 against $316,110.44 for same period, 1905. Approximate earnings for Oct., $294,288 against $269,901 for Oct., 1904.

Mineral Range Ry.—Approximate earnings for Oct. $69,340 against $67,279 for Oct., 1905.

Minneapolis, St. Paul and Sault Ste. Marie Ry.—Gross earnings for Sept., $1,293,528.63; net earnings, $742,460.48 against $1,148,461.45 gross and $724,139.57 net for Sept., 1905. Net earnings for three months ended Sept. 30, $1,772,083.00 against $1,573,154.62 for same period 1905. Approximate earnings for Oct., $1,274,743 against $1,168,798 for Oct., 1905.

Grand Trunk Ry. Earnings, Expenses, etc.

The following figures give the earnings and expenses of the G.T.R., the Canada Atlantic Ry., the G.T. Western Ry., and the Detroit, Grand Haven and Milwaukee Ry., separately, for Sept.:

GRAND TRUNK RAILWAY.

Earnings	$ 2,928,000
Expenses	1,998,000
Net earnings	$ 930,000

CANADA ATLANTIC RAILWAY.

Earnings	$ 192,800
Expenses	162,000
Net earnings	$ 30,800

GRAND TRUNK WESTERN RAILWAY.

Earnings	$ 539,200
Expenses	454,800
Net earnings	$ 84,400

DETROIT, GRAND HAVEN & MILWAUKEE RY.

Earnings	$ 152,600
Expenses	109,500
Net earnings	$ 43,100

TRAFFIC RECEIPTS OF THE SYSTEM.

Aggregate from July 1 to Oct. 31:

	1906.	1905.	Increase.	Decrease.
Grand Trunk	£2,400,214	£2,198,534	£201,740	...
Canada Atlantic	157,846	151,829	6,017	...
G. T. Western	432,680	395,695	36,985	....
D. G. H. & M.	131,885	109,792	22,091	....
Total....	£3,122,683	£2,855,850	£266,833	....

Approximate earnings of system for Oct. $3,892,357 against $3,572,766.

Railway Commissioners' Freight Orders.

1947. Nov. 9. In the matter of the application of the Board of Trade of Kaslo, British Columbia, complaining that the freight rates of the C.P.R. Co. and the Nelson and Fort Sheppard Ry. Co. to Kaslo and other Slocan points in British Columbia, amount to an undue preference and an unjust discrimination against Kaslo and in favor of Nelson and Rossland; and applying under the Railway Act, 1903, secs. 253 and 254, for an order requiring the companies to place their ports of call on Kootenay and Slocan Lakes upon an equality as to freight rates with Nelson and Rossland, having regard to difference in mileage; abolishing special and discriminatory rates between different classes of shippers from Nelson to points in Kootenay and Yale; and abolishing additional rates, or arbitraries, to such points as have a shorter haul than the common or base point, when such shorter haul is included in the longer to the said common or base point

Upon hearing what was alleged on behalf of the complainants and the Wholesalers' Association of Nelson and the railway companies; and upon reading what has been filed in support of the complaint and on behalf of the companies; and upon the report of its Chief Traffic Officer, the Board orders—

1. That to stations on the B.C. Southern, the Columbia and Kootenay and the Columbia and Western Railways, east of Nelson to and including Proctor, and west of Nelson to and including West Robson, Trail and Rossland, Nelson rates shall apply on the traffic of the C.P.R. Co.; and to stations on the Nelson and Fort Sheppard Ry., Nelson rates shall apply on traffic originating south of the International boundary.

2. That to the ports of call on Kootenay Lake of vessels connecting with the C.P.R. or the Nelson and Fort Sheppard Ry., Nelson rates plus the following arbitrary rates shall not be exceeded on the traffic of the C.P.R. and the Nelson and Fort Sheppard Ry. companies respectively:

To	1	2	3	4	5 classes.
Pilot Bay, Ainsworth.	8	7	6	5	4c. per 100 lbs.
Kaslo	12	11	9	8	6c. per 100 lbs.
Lardo	16	14	12	10	8c. per 100 lbs.

3. That on C.P.R. traffic destined to stations on the Kootenay and Arrowhead Ry., via Lardo, B.C., Nelson rates plus the following arbitrary rates shall not be exceeded:

To	1	2	3	4	5 classes.
Gerrard	28	25	21	18	14c. per 100 lbs.
Trout Lake City	32	28	24	20	16c. per 100 lbs.

4. That to the ports of call on Slocan Lake of the vessels connecting with the C.P.R., Nelson rates shall apply on C.P.R. traffic originating at and west of Kamloops, B.C., and that on C.P.R. westbound traffic routed via Kootenay Landing, B.C., Nelson rates plus the following arbitrary rates shall not be exceeded:

To	1	2	3	4	5 classes.
Slocan City	20	18	15	13	10c. per 100 lbs.
Silverton, New Denver	24	21	18	15	12c. per 100 lbs.
Rosebery	26	23	30	16	13c. per 100 lbs.

5. That to stations on the Nakusp and Slocan Ry., on C.P.R. traffic originating at and west of Kamloops, Nelson rates plus the following arbitrary rates shall not be exceeded:

To	1	2	3	4	5 classes.
Three Forks	10	8	7	6	5c. per 100 lbs
Sandon	12	11	9	8	6c. per 100 lbs.

To stations on the Nakusp and Slocan Ry. on C.P.R. westbound traffic routed via Kootenay Landing, B.C., Nelson rates plus the following arbitrary rates shall not be exceeded:

To	1	2	3	4	5	classes.
Three Forks	28	25	21	18	14c.	per 100 lbs.
Sandon	30	26	23	19	15c.	per 100 lbs

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As to Safety and Stability, we can refer you to any of the hundreds of buildings erected in all parts of the world according to the Kahn System.

If you will write your request on your business letter-head, we will place your name on our mailing list to receive the "Trussed Concrete Bulletin" for the coming year.

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6. That to Halcyon and Nakusp, ports of call of C.P.R. vessels on the Upper Arrow Lake, Nelson rates shall apply.

7. That to stations on the Columbia and Western Ry. west of Castlegar Jct., Nelson rates plus the following arbitrary rates shall not be exceeded:

To	1	2	3	4	5 classes.
Coryell	22	19	17	14	11c. per 100 lbs.
Cascade	28	25	21	18	14c. per 100 lbs.
Grand Forks	32	28	24	20	16c. per 100 lbs.
Greenwood, Phœnix	38	33	29	24	19c. per 100 lbs.
Midway	40	35	30	25	20c. per 100 lbs.

8. That tariffs to embody the foregoing changes shall be issued by the proper railway companies to come into effect not later than Jan. 1, 1907.

ALLEGED SHORTAGE OF CARS ON THE C.P.R.

1943. Nov. 10. The preamble of this order sets forth that numerous complaints have been made to the board, and in consequence the board directs that H. A. K. Drury, its engineer at Winnipeg, make an inquiry and report to the board whether the C.P.R. Co. does fail to supply sufficient freight cars for the carriage of grain offered for carriage upon its railway in Manitoba or Saskatchewan, and whether the company or its agents give a preference to traffic in coal over traffic in wheat, and whether the company does discriminate in the distribution or allotment of its freight cars against any locality in either of the said provinces or against any traffic originating on its railway, and whether any such discrimination, if existing, is unjust, and whether the company gives undue or unreasonable preference or advantage to traffic in coal over traffic in wheat or other grain, or subjects traffic in grain to any undue or unreasonable prejudice or disadvantage.

Victorian State Railways.—The report and statistical tables of the Victorian, Australia, State railways—which are managed by a commission, of which Thos. Tait, formerly Manager of Transportation C.P.R., is chairman—for the year ended June 30, have been issued. The report shows a still further general improvement, and the Melbourne Argus, in referring to the figures says that a large measure of the success achieved is due to the policy which placed the railways under the management of commissioners and to the ability and devotion of the men chosen for the work. The year 1902-03 closed with a deficiency paid out of the consolidated revenue of £365,254, and the year just ended paid over a surplus of £198,965 to the consolidated revenue. In the meantime £602,999 has been devoted to meeting the extraordinary liabilities which the commissioners took over on assuming office, upon which there was now due £192,762. The gross revenue for 1905-06 was £3,787,619, and the working expenses £1,999,023. The percentage of working expenses to revenue was 52.78 against 60.90 in 1901-02; the gross revenue per train traffic mile was $1.95.55 against $1.44.25, and the working expenses per traffic train mile was $1.3.16 against 88.24 cents for 1901-02. The increased earnings were made on a decrease of 1,892,875 traffic train mileage as compared with 1901-02

The Superior Dock Coal and Metal Co. has been incorporated under the Ontario Companies' Act, with a capial of $75,000 and offices at Sault Ste. Marie, Ont., for the purpose of acquiring the business and assets of the Algoma Iron and Metal Co., and in connection therewith to carry on a general warehousing and dockage business, and to act as booking and sales agents for passenger and freight traffic of railway companies, steamship companies and other carriers. The provisional directors are: F. A. Lucas, J. N. Oldham, and Agnes Spencer, of Sault Ste. Marie.

RAILWAY DEVELOPMENT.

Projected Lines, Surveys, Construction, Betterments, Etc.

Alaska.—Reports from Seward, Alaska, state that work on the Alaska Central Rd. is being pushed. Grading is practically completed to mileage 105, and track is expected to be laid to mileage 70 by the end of the year. There are seven tunnels between mileage 49 and 54. The line has been definitely located to mileage 185, where the Matanooska coal fields are situated. It is expected that this point will be reached by the end of 1907, as the most difficult part of the construction has been completed.

The Trans-Alaska Siberian Ry. Co. has been incorporated in New Jersey with a capital of $6,000,000, for the purpose of connecting the railways of the eastern and the western hemispheres. The main line is projected to start from Konsk station on the Trans-Siberian Ry. to Behring Strait, under which tunnels would be bored. The railway in Alaska would start from Cape Prince of Wales and run to the boundary line between Alaska and the Northwest Territory of Canada. The main lines would be about 3,750 miles in length, and the branch lines suggested would have a length of 2,250 miles. The incorporators are: L. le Lobel, Paris, France; J. A. L. Waddell, consulting engineer, Kansas City, Mo.; J. Healey, Washington, D.C.; W. H. Black, Jersey City, N.J.; J. R. Tanner, New York.

Athabasca Northern Ry.—The Dominion Parliament will be asked at its current session for an act extending the time for the construction of the company's authorized lines. Smith, Markey & Skinner, Montreal, are solicitors for the applicants.

Athabasca Ry.—Application will be made at the current session of the Dominion Parliament for an act extending the time for the construction of the previously authorized lines, and authorizing the construction of a line from near Fort McMurray, at the junction of the Athabasca and Clearwater Rivers, northerly to Fort Smith, on Slave Lake. Short, Cross & Biggar, Edmonton, Alta., are solicitors for the applicants.

Atlantic, Quebec and Western Ry.—It was expected that about 20 miles of the line westerly from Paspebiac towards Gaspe would be opened for traffic by Nov. 30. (Nov., pg. 639.)

Barrie and Orillia Ry.—The Dominion Parliament will be asked at its current session to pass an act incorporating a company with this title to construct a railway from near Grenfel or Midhurst station on the C.P.R., to near Barrie, also from near Barrie to Orillia, with branches to Penetanguishene and Brechin, with power to operate docks, wharves, elevators, steamboats and other vessels in connection therewith, and to make running and other agreements with other railway companies. W. A. Boys, Barrie, Ont., is solicitor for the applicants.

Bracebridge and Trading Lake Ry.—A contract has been arranged with G. A. Begy, St. Catharines, Ont., for the construction of this projected line, at a figure approximately of $332,500, the work to be started at once and completed by Oct. 1, 1907. The contract includes clearing the right of way, earth and rock excavation, the construction of two steel bridges crossing points on the Muskoka River, ballasting, fencing, station buildings, and the completing of the railway. The line will be 15.4 miles long, and will start at Bracebridge, from a convenient point on the G.T.R. It will pass through Fraserburg, and McCauley and Draper townships to Baysville on the Lake of Bays. It will open up a fine section of country and render more accessible to tourists the whole of the Lake of Bays territory. W. C. Farrington is the chief engineer for the company, and F. R. Wilford, Lindsay, Ont., is the engineer for the contractor, whose construction headquarters will be at Bracebridge. (Nov., pg. 639).

Brandon, Saskatchewan and Hudson Bay Ry.—Tracklaying was completed from the International boundary to Brandon, Man., 69.45 miles, Nov. 3. At the boundary the line connects with the branch of the Great Northern Ry., U.S., heretofore having its terminal at St. John, N.D., and the present terminus in Brandon is near 13th street. Work is in progress in laying out terminals, ballasting and otherwise finishing up the line. It is expected that a passenger service will be put in operation early in Dec. (July, pg. 379). See also Great Northern Ry., U.S.

Brockville, Westport and Northwestern Ry.—The directors and officers recently made a trip of inspection over the line, in which they were accompanied by the Dominion Government Inspector Johnston. During the season a large number of new ties have been put in, and several miles ballasted.

Application will be made at the current session of the Dominion Parliament for an act extending the time for the construction of the contemplated extension northwesterly

Canada Central Ry.—The Dominion Parliament is being asked at the current session for an act extending the time for the commencement and completion of the various lines authorized to be constructed, and authorizing it to enter into agreements under Sec. 281 and following sections of the Railway Act, 1903, with one or more, or all of the following railway companies: Manitoulin and North Shore Ry., Pacific and Atlantic Ry., Algoma Central and Hudson Bay Ry., International Transit Co., C.P.R., Canadian Northern Ry., Canadian Northern Ontario Ry., G.T.R., and G.T. Pacific Ry. H. C. Hamilton, Toronto, is solicitor for the company.

Cape Breton Coal, Iron and Ry. Co.—H. N. Gladstone was at Broughton, N.S., Oct. 25, inspecting the company's coal mines, and looking over the route of the proposed railway. He stated that the company intended to develop the property as speedily as possible. (Nov., pg. 639).

Colchester Coal and Ry. Co.—We were advised, Nov. 12, that grading on this line from Debert station on the I.C.R., to the company's collieries will be gone on with during the winter. It is expected that the tracklaying and ballasting will be gone on with in the spring. The contractors are A. & W. D. Wheaton.

Detroit River Tunnel.—The plans for the tunnel under the Detroit River, between Detroit, Mich., and Windsor, Ont., have been under the consideration of the executive committee of the New York Central Lines. (Nov., pg. 639).

Dominion Central Ry.—Application will be made at the current session of the Dominion Parliament for an act extending the time for the commencement and completion of the company's authorized lines, and giving power to enter into agreements with the G.T.R., the C.P.R., the Canadian Northern Ontario Ry., or the Brockville, Westport and North-Western Ry. E. Smith, Prescott, Ont., is solicitor for the applicants.

Duluth, Rainy Lake and Winnipeg Ry.—Press reports state that surveys have been completed from the present southerly termination of the line at Rainy Junction, Minn., to Duluth. The distance is about 60 miles, and what is an air line is said to have been obtained. Satisfactory progress is said to have been made this season with construction on the line northerly from Ashawa to Rainy Lake, opposite Fort Frances, Ont. (Sept., pg. 527).

Eastern Townships Ry.—Application is being made at the current session of the

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The cost-plus-a-fixed-sum contract gives the owner his construction at cost, plus a fixed sum for the contractor's services.

It limits the contractor's profit from the beginning of the work.

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It puts the contractor in the position of a skilled department head working wholly in the owner's interest.

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It invests the owner with absolute control over the work, allowing him to regulate the working forces to meet required conditions

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Dominion Parliament for an act incorporating a company with this title to construct a railway to be operated by steam, electricity or other power, from the Intercolonial Ry. in the parish of St. Leonard, across the Nicolet River, to the point of junction of the Quebec Central Ry. and the Maine Central Ry., at Cookshire, in the county of Wolfe, Que. It is also desired to have power to construct branch lines or tramways, telephone and telegraph lines, and to have it declared that the company's undertaking is one for the general advantage of Canada. L. R. Lavergne, Arthabasca, Que., is solicitor for the applicants.

Edmonton, Dunvegan and British Columbia Ry.—The Dominion Parliament will be asked at its current session for an act incorporating a company with this title to construct a railway from near Edmonton, Alta., northwesterly to Dunvegan, thence following the Peace River Valley to its confluence with the Parsnip River, and thence to Fort George, B.C. Pringle & Guthrie, Ottawa, are solicitors for the applicants.

Great Northern Ry. (U.S.).—The annual report for the year ended June 30, contains information as to the construction completed and at present in hand upon various parts of the system. The total tracks of all kinds in the system, including lines operated independently, is 7,763.76 miles; the total miles of road being 6,289.67, an increase of 179.25 miles during the year. Under the charter of the Dakota and Great Northern Ry., there were constructed 131.34 miles, including a branch from Towner to Maxbrass, 46.13 miles; a branch from York to Thorne, 34.68 miles, and the following extensions: Westthorpe to Antler, 12.76 miles; Munich to Sarles, 20.53 miles; St. Johns to International boundary, 3.88 miles; Ellendale to Forbes, 13.36 miles. The two new branches extend northerly towards the International boundary, and the extensions either bring existing branches nearer to, or run them parallel with the International boundary. The extension from St. John is in connection with the construction of the Brandon, Saskatchewan and Hudson Bay Ry. Under the charter of the Washington and Great Northern Ry. the line from Carlew to Ferry, at the International boundary, B.C., was completed and opened for traffic Dec., 1905. The other increases of mileage are on lines away from the Canadian boundary. The Vice-President's report gives the following particulars as to construction in hand: The works on the line being built by the Washington and Great Northern Ry. Co., and the Vancouver, Victoria and Eastern Ry. and Navigation Co. from Midway to Keremeos, B.C., which was described in last year's report as in progress, has been continued. Grading is nearly completed, and tracklaying commenced June 20. The Minnesota and Great Northern Ry. Co.'s extension from Greenbush to Warroad, Minn., a distance of 44 miles, is graded, but track will not be laid this fall. This line will connect with the Canadian Northern Ry. at Warroad, Minn. A line is also under construction, under the charter of the Dakota and Great Northern Ry., from Berthold to Crosby, 89 miles, which it is expected to have completed by Dec. 1, and an extension from Thorne to Dunseith, N.D., 7 miles, was opened in Oct.

The Brandon, Saskatchewan and Hudson's Bay Ry., from a connection at the International boundary with the Dakota and Great Northern Ry. Co.'s extension from St. John, N.D., to Brandon, Man., 69.45 miles, was expected to be completed by Nov. 1. This line runs through a fine country, already well developed and farmed. The Midland Ry. Co. of Manitoba, from a connection at Neche on the International boundary with the St. Paul, Minnesota and Manitoba Ry., to Portage la Prairie, Man., 77.01 miles, was expected to be completed in Nov.

Of the important works now in progress the Vice-President mentions the construction of 6-10 of a mile of track from Neche, N.D., to the connection at the International boundary with the tracks of the M. Ry. of Manitoba. (Nov., pg. 639).

Great West Ry.—Application will be made at the current session of the Dominion Parliament for an act amending the acts relating to the company by extending or altering its railway route as follows: (1) From near Cowley on the C.P.R. Crow's Nest branch, following the north fork of the Oldmans River up to and through the Gap in the Livingstone range of the Rocky Mountains, thence northerly in the valley of the Livingstone River to its headwaters, and on to a junction with the C.P.R. (2) From near the Gap southerly to a junction with the C.P R. Crow's Nest branch at or near Frank, Alta. (3) From about six miles north of the Gap easterly and northerly to a junction with the Calgary-McLeod branch of the C.P.R. It is also asked that the time for the construction of the line be extended. Galliher & Hannington, Nelson, B.C., are solicitors for the company. The G.W. Ry. is the title which was given in 1905 to the company formerly known as the Northwest Coal and Coke Co. The latter company was incorporated by the Dominion Parliament in 1903 with power to construct a railway from near Bull Park, Alta., to the C.P.R. Crow's Nest branch between Cowley and Livingstone.

Intercolonial Ry.—Tenders are under consideration for grading and double-tracking the cotton factory branch between the old locomotive house and Kempt Road; for grading and tracklaying in the new yard between Kempt Road and Windsor St.; for the erection of a 36-stall locomotive house, and for the removal and dredging out of pier 9, Halifax, N.S.

A. R. Macgowan, of the engineering staff, is making a survey at St. John in connection with the proposal to locate a second track between St. John and Hampton, N.B.

While considerable progress has been made with the erection of the new shops at Moncton, N.B., not so much has been done as was expected owing to the scarcity of labor.

Tenders will be received to Dec. 10 for the erection of locomotive shops at Moncton, N.B. (Nov., pg. 641).

Klondike Mines Ry.—An order has been issued by the Board of Railway Commissioners authorizing the opening for traffic of this line from Dawson City to Bonanza, Yukon.

Application will be made at the current session of the Dominion Parliament for an act extending the time for the construction of the line, and confirming an issue of bonds and other securities of the company. (June, pg. 327).

Michigan Central Rd.—The second track work on the section between Ridgetown and Tilbury, Ont., has been completed, and a freight service is being operated over it. The sections between Bridgeburg and Welland, and Hagersville and Springfield were expected to be completed by the end of Nov. The completion of these sections will give the M.C.R. a double track line through Canada. (June, pg. 327).

Midland Ry. of Manitoba.—It is expected that this line will be completed and opened for traffic early in Dec. The line is 77.01 miles long, and extends from a junction with the Great Northern Ry., U.S., branch from Grand Forks to Neche, N.D., to Portage la Prairie, Man. It passes through Plum Coulee, Roland, Carman, and Magnas. (Nov., pg. 641). See also Great Northern Ry., U.S.

Midway and Vernon Ry.—A press report states that the White Construction Co., of London, Eng., has made a proposition to the company to construct this projected line. The reference is probably to the Canadian White Co., Montreal, which is the Canadian connection of J. G. White & Co. (Limited), London. (Sept., pg. 529).

New Brunswick Coal and Ry. Co.—Owing to the difficulty of obtaining men to work on the line the contractors—Brown Bros.—have thrown up their contract for putting the line in thorough repair. The Provincial Government Commission, which has the affairs of the company in hand, made an attempt to go on with the work, but found the same difficulty facing them, and it is not expected that any more work will be done before spring. The contract called for the completion of the work by Aug. 31, but when Brown Bros. abandoned the work it was little more than half done. (July, pg. 381).

Nipissing Central Ry.—The Dominion Parliament is being asked at the current session to pass an act incorporating a company with this title to construct a railway from Latchford, Ont., through the townships of Coleman, Bucke, Dymond, Harris and Casey, to the Blanche River, thence northerly to Windigo Lake, and to a junction with the line of the G.T. Pacific Ry.; from Latchford along the Montreal River, through the townships of Coleman, Barr, Lundy, Auld, Cane, Barber, Tudhope, James, Smyth, and Willison, thence northerly to a junction with the G.T. Pacific Ry.; from Latchford southerly to Temagami; from near New Liskeard westerly through the townships of Dymond, Hudson, Lundy and Auld, to meet the second mentioned line; from near Windigo Lake westerly to the Temiskaming and Northern Ontario Ry.; from New Liskeard northwesterly through the townships of Kerns, Armstrong, Evanturel, Beauchamp and Dack to Charlton; a branch on the first-mentioned line from Casey township to North Temiscamingue on the River des Quinze, Que. Power is also asked to construct docks, wharves, elevators, etc., to generate electric power for lighting and motive purposes, and to make agreements with other companies. It is also asked to have the company's undertaking declared to be one for the general advantage of Canada. Denton, Dunn and Boultbee, Toronto, are solicitors for the applicants.

The Northfield Coal Co. has been incorporated under the New Brunswick Companies' Act, with a capital of $20,000, and offices at Northfield, N.B., to carry on coal mining and in connection therewith to construct and operate tramways, etc., for the carriage of the output of the mines; and to take shares or purchase similar undertakings. The provisional directors are: J. Barnes, M.L.A., Buctouche, N.B.; C. J. Osman, M.L.A., Hillsborough, N.B.; J. Kennedy, Adamsville, N.B.

Quebec and James Bay Ry.—A party of New York financial men were taken on a trip from Roberval, the terminus of the Quebec and Lake St. John Ry., to Chibougamo, recently with a view of interesting them in the construction of a railway to the large mining area discovered there. The district is reached by the preliminary location surveys of the Q. and J. B. Ry. from Roberval to James Bay.

A meeting of those interested in the construction of the line was held in Quebec, Nov. 13, when it was decided to make every effort to secure the capital necessary to construct the line, so as to secure the trade of the Chibugamoo mining district for Quebec. (July, pg. 386).

Quebec Bridge and Ry. Co.—Application is being made at the current session of the Dominion Parliament for an act amending the company's charter in various particulars, and authorizing an increase in the number of directors to twelve.

Quebec Central Ry.—Work on the extension of the Chaudiere branch from Beauce-

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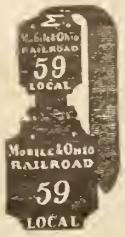

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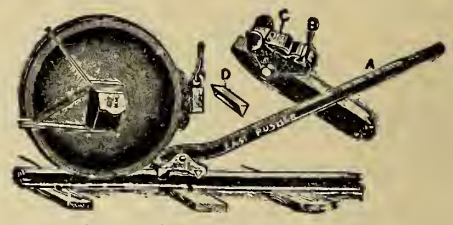

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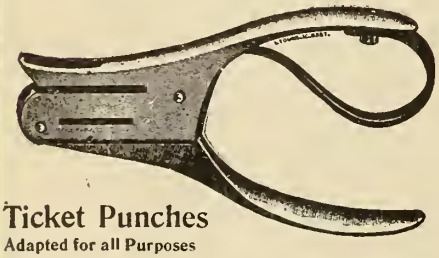

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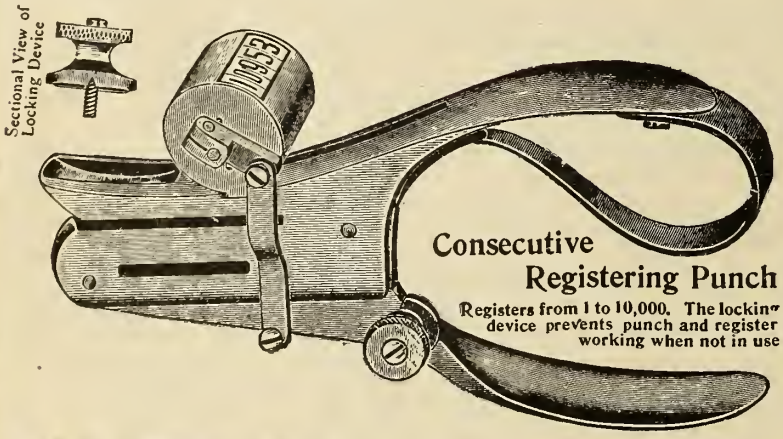

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ville to St. George, Que., 10 miles, is being rapidly pushed to completion. The contractor is Clark Gordon of Sherbrooke, Que. The charter for building this extension was granted by the Quebec Legislature in March last, the contract signed in June and work was immediately commenced; from 250 to 500 men have been constantly employed. There are some very heavy rock cuts and fills, but the work is rapidly nearing completion and it is expected that the line will be in operation to St. George before the end of the year.

The Scotts branch, which will connect the main line with the new Quebec Bridge over the St. Lawrence, thereby giving the Q.C. Ry. an entrance into Quebec city, has been located, but actual construction is not likely to commence before the beginning of 1908. The Quebec Bridge is not expected to be completed before the end of 1909, the extension from Scotts to the Bridge, about 20 miles, can be completed in one season, and in ample time for the opening of the bridge.

Queen Charlotte Islands Ry.—Application will be made next session of the B.C. Legislature for an act reviving, ratifying and confirming the act of incorporation passed in 1905, and extending the time within which the projected line may be constructed. In the alternative application is being made for the incorporation of a company to construct a railway upon Queen Charlotte Islands. Barnard & Robertson, Victoria, B.C., are solicitors for the applicants.

Quebec and Lake St. John Ry.—It is expected that the La Tuque branch will be completed and in operation by the end of the year. Officials of the company and some members of the Government went over the branch Nov. 2, as far as steel had been laid, about 35 miles. There was about six miles of grade between track end and the terminal at the La Tuque Falls to be completed, but it was expected that this would be all finished by Nov. 30. (Nov., pg. 641).

Quebec, Montreal and Southern Ry.—A contract has been let to O'Brien & Mullarkey, Montreal, for the construction of a line from Pierreville to St. Philomene, Que., on the Lotbiniere and Megantic Ry., about 48½ miles. The contract calls for an immediate start, and for the completion of the grading in the fall of 1907. It is reported that contracts will shortly be let for a further 40 miles from St. Philomene to the southern end of the Quebec Bridge. Upon this 88 miles of lines there will be steel bridges of some length over the Nicolet, Becancœur, Gentilly, Orignaix and Du Chene rivers. The substructure of the bridge over the Nicolet River was built by the old South Shore Ry., which extends from St. Lambert to Pierreville, and which was one of the lines acquired by the Delaware and Hudson Rd., and amalgamated under the above title. The gradients on the new line will not exceed 0.4 per cent., and the track will be laid with 80-lb. steel. (Sept., pg. 529).

Quebec Oriental Ry.—Application will be made at the current session of the Dominion Parliament for an act confirming the charter granted by the Quebec Legislature in 1903 to this company; to declare its undertaking to be one for the general advantage of Canada; to grant an extension of time for the construction of the projected railway, and to authorize the company to enter into agreements with other railway companies.

Quebec Terminals.—A meeting between the Commissioners of the National Transcontinental Ry., the Minister of Railways and Canals, and the railway and marine interests of Quebec, was held there Nov. 7, for the purpose of discussing the question of railway and steamship terminals. Plans prepared by E. A. Hoare, Chief Engineer Quebec Bridge and Ry. Co.; A. E. Doucet, Divisional Engineer National Transcontinental Ry., and St. G. Boswell, Chief Engineer Quebec Harbor Commission, were laid before those present and discussed. The plans favorably considered were presented by Messrs. Hoare and Doucet, and provided for the construction of terminals, docks, etc., in line with the river front, and a union station on the site of the Champlain market. In the course of the discussion the Minister of Railways stated that the Government was committed to furnish the G.T. Pacific Ry. with terminal accommodation in Quebec, and if the other railway interests did not agree to join together in the formation of a terminal company to aid in the construction and management of the same, and thus secure equal rights, the Government would proceed to build the terminals on its own responsibility and when completed hand them over to the G.T. Pacific Ry. The general opinion was that the union station for all south shore traffic, and for other lines wishing to get in, should be erected on the site of the present Champlain market, and that estimates be prepared for the construction of an up-town station. The Quebec and Lake St. John Ry., and the Quebec Ry., Light and Power Co., did not desire to use a station at Champlain market. The question of the formation of a terminal company to carry out the plans was discussed, but no decision was reached. Two sub-committees were formed, one to study out the question of plans, and apportionment of cost among the different railway companies interested, and the other to consider the plans from the steamship owners' point of view. These committees will report to the full body at a future date, and the representatives of the different railway companies will in the meantime discuss the matter with their managers. The C.P.R. was not represented at the meeting. (See National Transcontinental Ry., Nov., pg. 649).

Red Deer Valley Ry. and Coal Co.—G. E. Kidd, solicitor, Ottawa, is suing the company and the charter members for professional services rendered when the bill for the revival of the company's powers was before the Dominion Parliament in 1905.

Spokane International Ry.—A freight service has been placed in operation on this line from Spokane, Wash., to the International boundary of B.C., where it connects with a branch of the C.P.R. Crow's Nest branch from Yahk. A passenger service was expected to be put in operation early in Dec. (Sept., pg. 529)

St. Leon Ry.—Application will be made at the current session of the Dominion Parliament for an act incorporating a company with this title to construct a railway from the C.P.R., near Louisville, in Maskinonge county, Que., northward to St. Alexis, passing by way of St. Leon, with power to construct branch lines to or near Three Rivers, in St. Maurice county, and to Lake Maskinonge in Berthier county. It is also asked that the lines to be constructed may be declared works for the general advantage of Canada. The notice of application is signed by W. H. Moore, Secretary Canadian Northern Ry.

St. Mary's and Western Ontario Ry.—J. G. Macklin, formerly division engineer on the construction of the Guelph and Goderich Ry., has been appointed Chief Engineer of the St. M. and W. O. Ry., and has opened an office at St. Mary's, Ont. The company proposes to construct a railway from St. Mary's southeasterly to Embro, about 15 miles. The route will follow a fairly straight line between the two points, and about nine miles from St. Mary's will pass through the village of Lakeside. Preliminary surveys have been made, and the location survey is about completed. It is expected that construction will be started in the spring. G. E. Hyde is assistant engineer, his office also being at St. Mary's. By-laws have been passed by the municipalities through which the line will pass, granting aid towards the construction of the line. It is understood that the line will connect at Embro with the extension of the Tillsonburg, Lake Erie and Pacific Ry., which the C.P.R. is constructing, and at St. Mary's with a projected branch of the Guelph and Goderich Ry. J. H. Graham, St. Mary's, Ont., is Secretary of the company. (Oct., pg. 585.)

Temiskaming and Northern Ontario Ry.—The Dominion Minister of Finance has promised consideration of the claim of the Ontario Government that this railway is entitled to receive a Dominion subsidy on the same terms as other lines have received aid. It is estimated that the amount which would be earned under a subsidy agreement would be about $1,000,000. (Nov., pg. 641).

Ungava Ry.—Application is being made at the current session of the Dominion Parliament for an act to incorporate a company with this title for the purpose of constructing and operating a railway from Cambrian Lake on the Kaniapiskau River, to the south bank of the Koksoak River, approximately opposite Fort Chimo, in the district of Ungava, and declaring that the railway shall be a work for the general advantage of Canada. Chrysler, Bethune and Larmouth, Ottawa, are solicitors for the applicants.

Vancouver, Victoria and Eastern Ry.—The map attached to the annual report of the Great Northern Ry., U.S., shows the sections of this line and its U.S. connection, the Washington and Great Northern Ry., which have been completed, and the route as located or projected into Vancouver, B.C. The line starts at Marcus, Wash., and runs over the B.C. boundary in the vicinity of Grand Forks, then back into the U.S. to Curlew; once more into B.C. to Midway, and thence to Oroville, Wash., to which point it has just been completed. From Oroville the boundary will be crossed again, and for the last time. The located route follows the Similkameen valley past Keremeos and Princeton and southerly of Black Mountain; thence southerly, gradually approaching the Fraser River to Agassiz, and thence to Cloverdale. At this point the line will connect with lines constructed under the charters of the Vancouver, Westminster and Yukon Ry., and the Victoria Terminal Ry. and Ferry Co., as well as the Great Northern Ry. line from Blaine. The line from Blaine connects over the Fraser River bridge, built by the Provincial Government, with the V.W. and Y. Ry. line from New Westminster to Vancouver, and the V.T. Ry. line extends from Cloverdale to Port Guichon, from which ferry connection is maintained with the Victoria and Sidney Ry. on Vancouver Island. The line westerly to Oroville is expected to be put in operation by Jan. 1, and construction is reported to be in a forward state as far as Keremeos. J. H. Kennedy, Chief Engineer V.V. and E. Ry., and A. H. Hogeland, Chief Engineer Great Northern Ry., inspected the construction in progress recently, and had a consultation at Keremeos with A. E. Baldwin, who has charge of the surveys in progress west of Princeton. It is reported from Cloverdale that a contract has been let to the British Columbia General Contract Co. for the construction of a line from Cloverdale easterly to Abbotsford; that a contract has been let for a line 32 miles in length from Cloverdale, B.C., to Sumas, Wash.; and for a new line 22 miles in length from Blaine, Wash., to New Westminster, B.C. This latter line, it is reported, will run along a stretch of low coast land, thus avoiding steep grades further in shore. G. O. Loss & Co., G. B. Bright, and Ironsides, Rannie & Campbell are reported to have sub-contracts upon the line. (Nov., pg. 641). See also Great Northern Ry., U.S.

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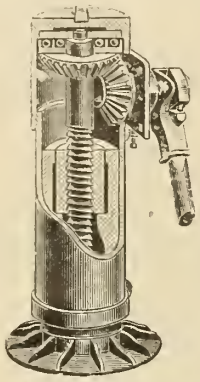
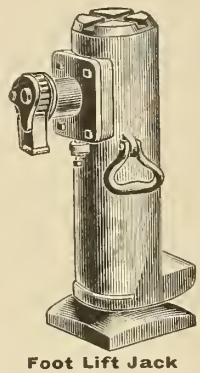


Sectional View



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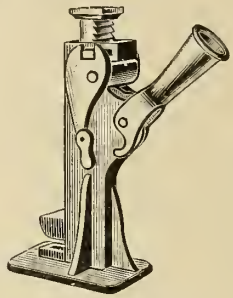

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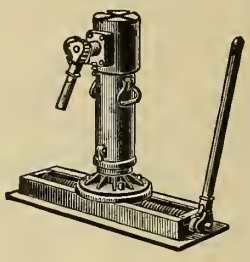

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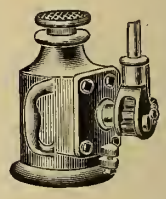

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Vancouver, Westminster and Yukon Ry.—Plans have been filed in the registry office at Vancouver, B.C., showing the company's proposals for water front terminals. A frontage of nearly a mile in length has been secured, and the plans show large wharves for ocean-going vessels, with a railway line skirting the east end of False Creek along Raymond Avenue to Burrard Inlet. Notice of expropriation proceedings has not been filed.

The survey of the projected line from Vancouver northerly is reported completed as far as Squamish, and arrangements have been made for the construction of a bridge across the Second Narrows. Press reports from Vancouver state that it is expected to let contracts for the construction of the first 40 miles early in Jan. (July, pg. 381).

White Pass and Yukon Ry.—The plans under consideration for the betterment of the line include the elimination of wooden bridges and the substitution of gravel fills. Where necessary these are made by the construction of concrete walls to hold the gravel in place. Some improvements in curvature are also contemplated, but it is not intended to do very much in this way until the bridge work has been renewed. (June, pg. 327).

Winnipeg and Galveston Ry.—This company has filed an amendment to its charter in Oklahoma increasing the capital stock to $60,000,000. The road is projected from Winnipeg, Man., to Galveston, Tex., and the route in Oklahoma is through the counties of Grant, Garfield, Logan, Kingfisher, Cleveland and Pottawatomie. The directors are: A. H. McMahon, Wakita, Okla.; W. M. McGibbon, Gibbon, Okla.; W. O. Jones, Wakita, Okla.; J. A. Koontz, Hutchinson, Kan.; T. C. Spaulding and H. V. Goodrich, Kansas City; J. H. Ledgerwood, Denver; Grant Dale, A. G. C. Bierer, Robert Sohlberg and B. F. Hegler, Jr., Guthrie, Okla.

Winnipeg Terminals.—Notice is given by Z. A. Lash, solicitor for the Canadian Northern Ry., and W. H. Biggar, solicitor for the Grand Trunk Pacific Ry., that application will be made at the current session of the Dominion Parliament for an act confirming an agreement between those companies relating to joint terminals at Winnipeg, empowering the parties to carry out and enforce the terms thereof, and conferring upon the Canadian Northern Ry. the necessary powers of issuing securities to raise the moneys required for expenditure upon the terminals. S. N. Parent, Chairman of the National Transcontinental Ry. Commission, stated, Nov. 9, that the agreement had not been finally approved of, but it was expected that it would be completed at another meeting of the interested parties.

Wolfe, Megantic and Lotbiniere Ry.—An agreement is said to have been made for the sale of the charter and franchises of the company to the Lotbiniere and Megantic Ry. for $1,000. The L. and M. Ry. may take advantage of the agreement any time within 12 months from Aug. 8, 1906, but upon acceptance agrees to proceed with the survey of the extension from Lyster station to Lime Ridge, Que., as soon as the right of way is voted by the municipalities, and that the extension shall be completed to St. Ferdinand d'Halifax within two years of the voting of the right of way. The shareholders of the W., M. and L. Ry. met at Inverness, Que., Oct. 29, to ratify the agreement.

Yonge St. Bridge.—The Toronto City Council has agreed on a payment of $100,000 by the railway companies toward the construction of a bridge across the Esplanade at the water front of Yonge St. The question of the future maintenance of the bridge is undecided. A vote of the ratepayers will be taken at the annual elections upon a by-law authorizing the raising of the funds necessary to construct the bridge. (Aug., pg. 457).

Railway Rolling Stock Notes.

The Quebec, Montreal and Southern Ry. will, it is said, shortly place orders for locomotives.

The Colchester Coal and Ry. Co., Parrsboro, N.S., is in the market for a 40 ton second-hand locomotive.

The Dominion Coal Co. is having a six-wheel switching locomotive built by the Locomotive and Machine Co. of Montreal.

The Intercolonial Ry. has received two wing elevator plows and one double track plow from Rhodes, Curry & Co., Amherst, N.S.

The Prince Edward Island Ry. has sold one of its locomotives to Mr. Reid, Avondale, P.E.I., who will utilize it for driving the machinery at his lumber mill.

The Central Ontario Ry. has placed an order for 20 box cars, 60,000 lbs. capacity, the general specifications being similar to those ordered by the G.T.R., and referred to in Sept. issue, pg. 513.

The Canadian Northern Ry.'s order for 200 Hart convertible cars mentioned in our last issue as having been given to the Canada Car Co., was given to the Dominion Dump Car Co. The cars are being built by the Canada Car Co.

The C.P.R. between Oct. 14 and Nov. 13 placed orders for the following rolling stock at its Angus, Montreal, shops: two switching locomotives, four tourist cars, one mail and express car, one colonist car, 65 box cars, 45 flat cars, and 10 stock cars.

The Canadian Locomotive Co., Kingston, Ont., has recently delivered two 10-wheel locomotives to the Canadian Northern Ry., two 6-wheel switching locomotives to the Temiskaming and Northern Ontario Ry., and three switching locomotives to the Intercolonial Ry.

The C.P.R. between Oct. 14 and Nov. 13 received the following rolling stock: five locomotives, two sleeping cars, five first-class cars, three colonist cars, 25 box baggage cars, and 520 box cars from its Angus, Montreal, shops; and two vans from its Farnham, Que., shops.

The G.T.R. has decided to make an experiment with a smoke consuming device on one of its switching locomotives in the Toronto yards, and if it is successful will equip all its locomotives. The C.P.R. was recently investigating the possibilities of smoke consuming devices for its locomotives.

A. Patterson, C.P.R. Master Mechanic at Medicine Hat, Alta., has fitted up a dummy engine with a view of testing natural gas as a fuel. In a pit underneath the locomotive is fixed a set of car wheels which revolve beneath those of the locomotive and so enable tests of speed to be made. Storage tanks for the natural gas are being made at Montreal with a view of being fitted to a locomotive so that tests can be made in actual running.

The G.T.R., we were advised Nov. 12, had, within the previous 60 days placed orders for the following rolling stock: 1,000 steel coal cars, 100,000 lbs. capacity; 1,250 box cars, 60,000 lbs. capacity; 1,500 flat cars, 60,000 lbs. capacity; 250 furniture cars, 60,000 lbs. capacity; 300 single deck stock cars, 60,000 lbs. capacity; 200 double deck stock cars, 60,000 lbs. capacity, and 300 ballast cars, 100,000 lbs. capacity. It was also expecting to place within the next few days thereafter, orders for 500 refrigerator cars, 60,000 lbs. capacity.

The Quebec, Montreal and Southern Ry. (owned by the Delaware and Hudson Rd.), has ordered 1,500 steel underframe box and stock cars from the Canada Car Co., Montreal. The cars are to be 60,000 capacity, and will be similar in size and construction to those of the Delaware and Hudson Rd. The car company will begin the deliveries in Feb., 1907. The Dominion Steel Car Co. will supply the structural steel underframes for the 1,400 box cars and 100 stock cars, which will be equipped with Simplex trucks and castings, brakebeams and truck bolsters.

We were advised recently that a report had not been received by the Department of Railways from G. R. Joughins, Superintendent of Motive Power, Intercolonial Ry., upon his recent inspection of motor cars in Europe. He was at Ottawa upon his return and discussed the matter at some length with M. J. Butler, Deputy Minister. No definite conclusions can be reached until the report has been prepared and has been fully considered. The motor cars on the Great Western Ry. of England, the Department has been advised, have reached a higher degree of efficiency than those in service upon any other railway in the world. It is quite possible that the Department will adopt, so far as they are practicable for Canadian requirements, the solutions reached by the Great Western Ry.

Following are general specifications of the 15 consolidation locomotives for which the Canadian Northern Ry. has placed an order with the Canadian Locomotive Co.:

WEIGHT.—In working order, on drivers, 151,000 lbs; total, 170,000 lbs.

WHEEL BASE.—Engine, 15 ft. 6 in.; total, 23 ft. 6 in.; engine and tender, 56 ft.

HEATING SURFACE.—Firebox, 176 sq. ft.; tubes, 2,259 sq. ft.; total, 2,435 sq. ft.

WHEELS.—Diameter, 57 in.; material of centres, cast steel, others cast iron; diameter and length of driving journals, 9 by 12 in.

CYLINDERS.—Diameter, 21 in.; stroke, 26 in.

BOILER.—Type, extended wagon top; working pressure, 200 lbs.; number of tubes, 300; diameter, 2 in.; length, 14 ft.

BRAKES.—Westinghouse combined automatic and straight air.

TENDER.—Weight loaded, 140,000 lbs.; tank, 6,000 imperial galls. water; coal capacity, 12 tons; truck, 4-wheel; diameter of wheel, 33 in.; kind of wheel, cast iron chilled tread; journals, 5½ by 10 in.; brake beam, Simplex.

The G.T.R. was opened on Oct. 27, 1856, as far westward as Stratford, Ont., at which point there was a public celebration.

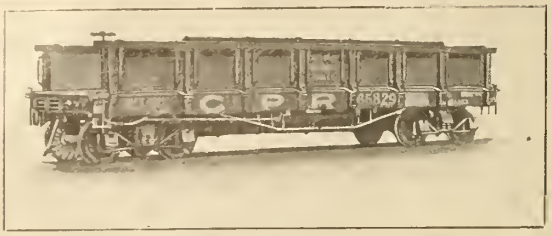
Application will be made next session of the Saskatchewan Legislature for an act incorporating the Moose Jaw Railroad and City Y.M.C.A.

It has been decided to hold the annual conventions of the Master Mechanics' and the Master Car Builders' Associations for 1907, at Atlantic City, N.J., in June.

The Merchants Line, Montreal, is reported to be negotiating for the purchase of the Anchor Line str. Japan, to be placed on the Toledo-Montreal route in conjunction with the Bickerdike.

The Kingston, Ont., Board of Trade has passed a resolution inviting other similar organizations in the Dominion to petition the Dominion Government to deepen the Welland Canal, so as to allow of its navigation by the larger vessels now operating on the Upper Lakes.

The C.P.R. action against the Ottawa Fire Insurance Co. has reached the Supreme Court. The C.P.R. held a policy insuring it against damages caused by locomotives to property in the State of Maine, not including the company's own property. A quantity of standing timber was destroyed by a fire started by sparks from a C.P.R. locomotive. The company indemnified the owners of the timber, but the Ottawa Fire Insurance Co. refused to reinburse the C.P.R. on the ground that its charter did not authorize it to insure standing timber. The C.P.R. thereupon sued for the amount paid as damages, or in the event of the policy being invalid, for a return of the premiums paid with interest. Upon the first trial the courts found for the fire insurance company.



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Side Dump Construction.
Centre Dump Hopper for Coal and Ballast.
Side Dump Gondola for General Service.

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Thousands in daily service have proven their great economy and practicability

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Bottom Drop Door

COAL AND ORE CARS

Entire bottom dropping, including over the trucks. Does away with all shoveling, operated by worm and gear from end of cars by hand wheels as shown in cut.

Simple Mechanism

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DOMINION DUMP CAR CO, LTD.

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Applicable to Gondola Box, Stock and Coke Cars

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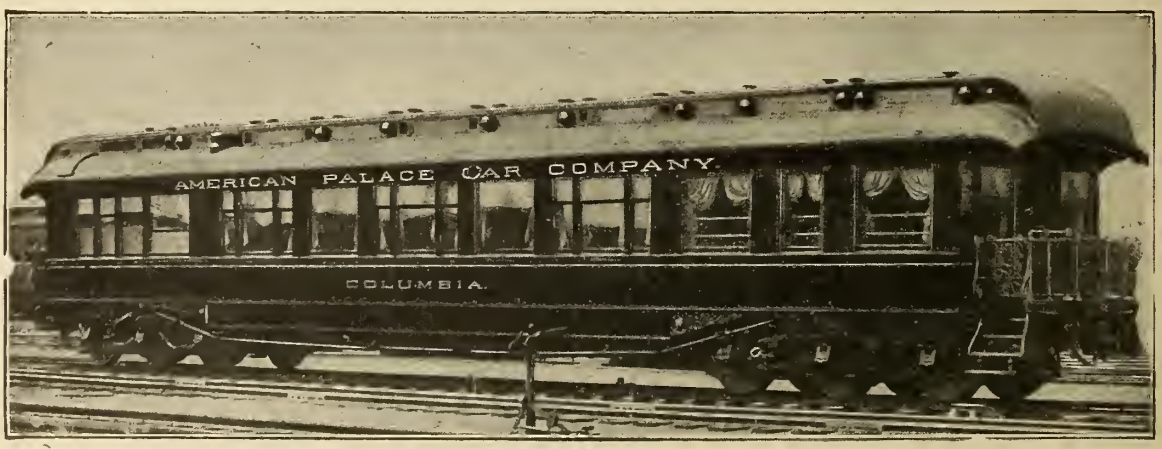

Exterior of the Private Car "Columbia" now in Commission Demonstrating the Advantages of the New System of Combined Sleeping, Parlor and Dining Car owned by the Company. Protected by Patents in the United States, Canada and Foreign Countries.

Operating a new system of convertible parlor and sleeping cars whereby the beds are lowered into ventilated, steel-lined, dust-proof receptacles underneath the car, affording the passenger the advantage of an open parlor, with movable chairs, sofas, etc., by day, with no semblance of a sleeping car.

Over 100 of these cars now under construction or ordered for operation on American and Canadian railroads.

Prospectus and full particulars free on application.

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Figure 1

Canadian Pacific Railway Coal Cars.

The handling and storing of coal is an important one for Canadian railway officials, owing to the provision which has to be made for the winter's supply when river and lake navigation is closed. It is the practice, except at some points served by ocean ports, or by direct rail haul, to secure the coal supply during the summer, string it in large piles along the lines at convenient points, anywhere from 50,000 to 250,000 tons being often contained in a single pile. The coal shown in the accompanying illustrations is taken from Nova Scotia by steamship to Montreal, where it is loaded on cars and conveyed to the coal piles. The method of unloading has always been a rather expensive proposition, as in most cases the coal had to be shovelled from the cars. The C.P.R. management having decided that a better and more economical method of

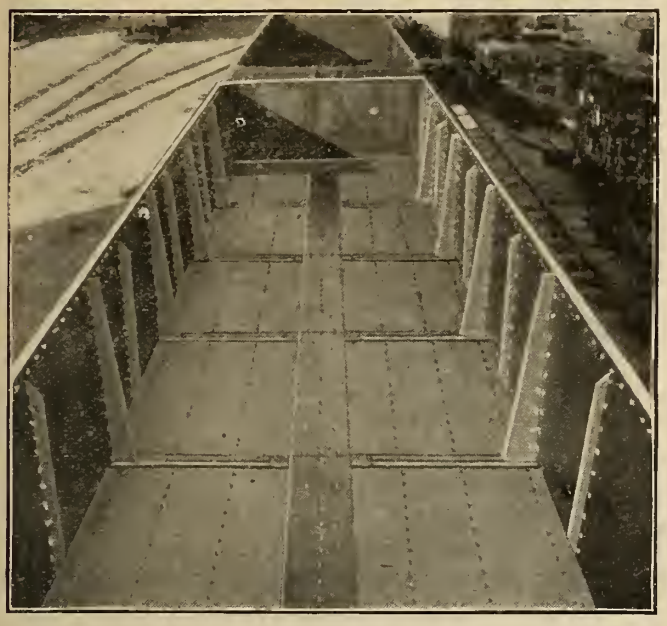


Figure 2

Figure 4

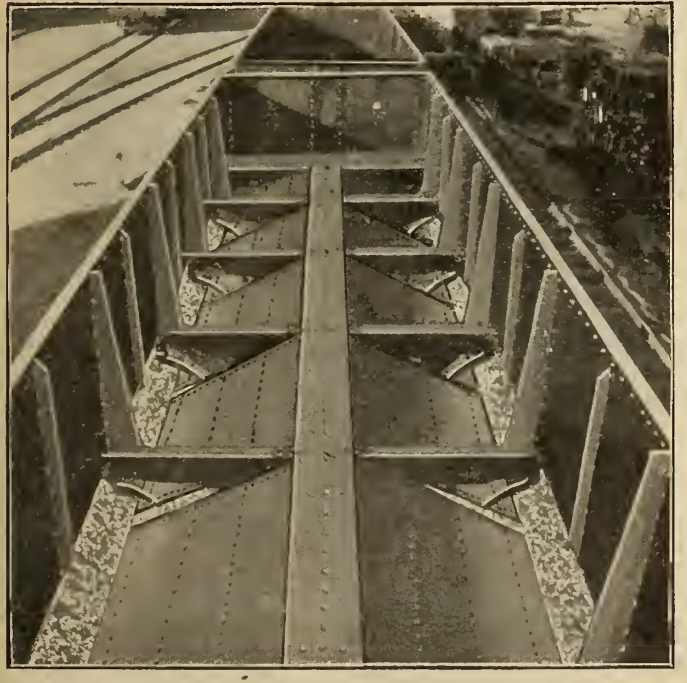
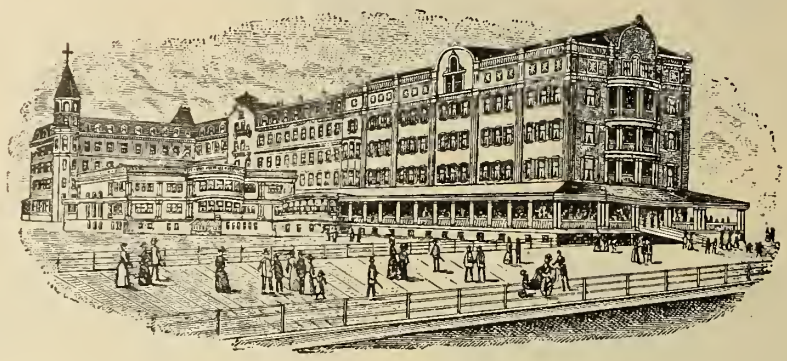


Figure 3

Figure 5

HOTEL TRAYMORE

ATLANTIC CITY, NEW JERSEY



Hot and cold sea and fresh water in all baths. Running water in bedrooms. House thoroughly and completely appointed with every known modern equipment. Seventy-five private baths. Illustrated booklet. Capacity 450. Unobstructed view from all rooms. Golf privileges to guests over the famous Atlantic City Country Club Course.

D. S. WHITE
PRESIDENT

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CHAS. O. MARQUETTE - - MANAGER

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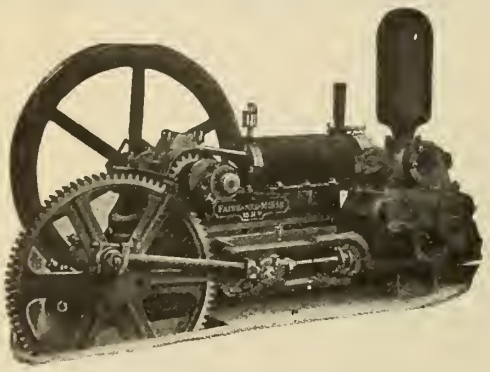

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Also a full line of

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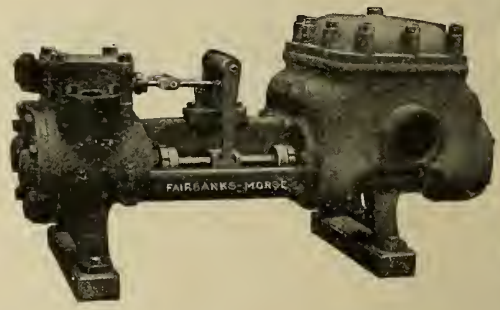

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TRACK TOOLS SHOVELS RAILROAD BARROWS BARRETT TRACK JACKS

THE CANADIAN FAIRBANKS CO., LIMITED

MONTREAL
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handling must be adopted, placed an order early in this year for 500 all steel, level floor, drop bottom gondolas, class E. 12, of the National type.

The general dimensions of these cars are as follows: capacity, 100,000 lbs.; length inside, 36 ft. 9½ ins.; length between end sills, 37 ft. 11 ins.; width inside, 9 ft. 7 ins.; extreme width, 10 ft. 1½ ins.; height from rail to floor of car, 4 ft. 4½ ins.; height of coal sides, 4½ ft.; truck centres, 25 ft. 8 ins.; wheel base, 5½ ft. The floor of the car is composed of 12 drop doors, which are hinged to the centre sills. The eight centre doors are 4 ft. 1½ ins. wide by 5 ft. ½ in. long, and the four end doors, which extend from bolster to end sill, are 4 ft. 1½ ins. wide, and 4½ ft. long. When the drop doors are down in discharging position, there is a clear opening from bottom of side girder to face of door of 2 ft. by length of car. The special equipment includes Simplex bolsters, roller side bearing and brake beams, McCord journal boxes, Westinghouse air brakes.

The illustrations on this page and page 720 are as follows: Fig. 1—Side and end elevation of car when drop doors are closed. Fig. 2—Interior of car with drop doors closed. Fig. 3—Interior view of car with drop doors open. Fig. 4—Side elevation of car standing on top of coal pile. The coal shown is piled about 14 ft. high. Fig. 5—Car dumping first three sets of doors. Fig. 6—Car dumping the next three sets of doors. The car is arranged so as to dump in four sections, there being all told 12 doors to the bottom of the car. This illustration shows three of the doors down and three discharging. Fig. 7—Side elevation of car, and face of the coal pile. Fig. 8—Top of coal pile and men making ventilation holes. When coal is piled in large quantities and left to stand, it will sometimes commence to burn from spontaneous combustion, but when properly ventilated as shown in this illustration, the ventilating holes being placed about every 3 ft., the pile remains perfectly cool. The ventilating holes are made by driving a rod down through the pile and then forming a kind of cement with coal dust and water with which to face the top edge of the hole, so as to prevent the coal falling in again and closing same up.

These cars were built under license from the Dominion Dump Car Co., Montreal, by the Dominion Steel Car Co. at Montreal West.

Figure 6

Jas. Yeo, Riviere du Loup, Que., who was one of our earliest subscribers, in remitting his annual subscription, says: "I wish you every success with your important transportation paper."

The Brandon, Saskatchewan and Hudson Bay Ry. has filed a standard local passenger tariff with the Board of Railway Commissioners, covering the line from St. John, N.D., to Brandon, Man., the basis being 3c. per mile

TRADE AND SUPPLY NOTES.

The matter which appears under this heading is compiled, in most cases, from information supplied by the manufacturers of, or dealers in, the articles referred to, and in publishing the same we accept no responsibility. At the same time we wish our readers to distinctly understand that we are not paid for the publication of any of this matter, and that we will not consider any proposition to insert reading matter in our columns for pay or its equivalent. Advertising contracts will not be taken with any condition that accepting them will oblige us to publish reading notices. In other words, our reading columns are not for sale, either to advertisers or others.

Ideal Power is the title of a monthly magazine devoted to compressed air and electrical appliances, issued by the Chicago Pneumatic Tool Co., Chicago, Ill.

The American Locomotive Co.'s shareholders have elected the following as directors for three years: W. M. Barnum, R. J. Gross, C. Miller, F. H. Stevens.

The Robb-Mumford Boiler Co., which is allied to the Robb Engineering Co., Amherst, N.S., has declared a dividend of 3½ % for the half year ended June 30.

The Chicago Pneumatic Tool Co., Chicago, Ill., has issued a complete illustrated catalogue of the Franklin Air compressors, which it manufactures at its Franklin, Pa., works.

The Canadian Westinghouse Co., Hamilton, Ont., has issued circulars and other literature descriptive of its direct current motors, bearing metal, and starting and field rheostats.

The Dominion Steel Co., Sydney, N.S., recently had representatives looking over sites at Port Arthur, Ont., with the object of establishing a plant there for the manufacture of wire. The Town Council has the matter under consideration.

In respect to Moncton, N.B., press reports we are advised that Rhodes, Curry & Co. have no present intention of leasing the old Intercolonial shops at that point, nor is it their intention to build cars at any point outside of Amherst, N.S.

J. W. Duntley, President Chicago Pneumatic Tool Co., sailed for Europe, Nov. 6, for a five weeks' trip in the interest of the company's business, during which time he will visit the important trades generally in England, Scotland, France and Germany.

The shareholders of the Montreal Steel Co. have passed a resolution increasing the capital from $1,500,000 to $2,000,000. The new capital will be half preferred and half common and will be issued, it is expected, early in 1907.

Figure 7

Figure 8

PINTSCH LIGHT

The new Pintsch Gas Inverted Mantle Lamp for passenger cars increases illumination over three times with the same consumption of gas—a revolution in train lighting.

CAR HEATING

160 railroads are using on 19,000 cars the Safety devices for direct steam and hot water heating.

SAFETY CAR HEATING AND LIGHTING COMPANY

160 Broadway - NEW YORK CITY

CHICAGO ST. LOUIS PHILADELPHIA SAN FRANCISCO

MAGANN STORAGE AIR BRAKE SYSTEM

AIR STORAGE NOT BATTERY STORAGE

BEST, CHEAPEST, MOST RELIABLE FOR CITY AND RADIAL LINES

Compressed Air supplied by Central Compressor plants from power-house or track reservoirs to tested tanks carried on cars.

Motors and complicated Machinery on cars done away with and operation expenses reduced to a minimum.

Magann Air Brake Company, Limited,
Toronto

The Toronto Railway Company,
Toronto, Ont., March 15th, 1906

Dear Sirs,

I have pleasure in stating that your Storage Air Brake equipments which have been already installed on a large number of cars of The Toronto Railway Company are giving unqualified satisfaction. Your system is certainly the best on the market and the results produced in actual operation are all that can be desired. I am satisfied that you have given us a reliable and powerful brake which can be depended upon at all times.

Yours truly,
ROBERT J. FLEMING, General Manager

For full particulars apply to the Company **1 TORONTO ST., TORONTO**

The proceeds will be utilized for the purpose of providing additional buildings.

W. Abbott, 334 St. James St., Montreal, agent for Novo Steel, states that a new section is being made which will effect a saving of from 35 to 40% in the weight of lathe, planer and cutting off tools. It is claimed that they require no forging, that in consequence there is no waste, and that there is no breakage, as these sections are stronger than the solid steel.

The American Locomotive Co. has published a pamphlet describing and illustrating consolidation locomotives weighing more than 175,000 lbs. It is a sequel to the pamphlet issued in Oct. presenting designs of this type weighing less than 175,000 lbs. In the pamphlet 28 consolidation locomotives built for various railways and ranging in weight from 175,000 to 250,000, lbs. are illustrated, and the principal dimensions of each design given. This is the fourth of the series of pamphlets which is being issued by the company to include all the standard types of locomotives. The series now covers the Atlantic, Pacific and consolidation types and copies may be had on request.

The Canadian White Co., Ltd., Montreal, has issued a booklet giving particulars of its organization, etc. The directors of the company are J. G. White, Chairman; P. G. Gossler, Vice-President; F. H. Alfred, General Manager, Sir H. Montague Allan, E. R. Wood, Sir Henry Pellatt. The building organization is as follows: F. H. Alfred, General Manager; H. C. Hitch, General Superintendent; G. Vogelsberger, Estimating subcontracts; J. D. Shoemaker, Construction details, plans; P. Chipman, Statistical Engineer.; H. C. Weare, Montreal Superintendent; S. I. Acken, Jr., Western Representative and Superintendent; H. Lewis, Ontario Representative and Superintendent; Superintendents in charge of buildings. The building contracts undertaken by the company include the following: Terminal Warehouse and Cartage Co., Montreal, storage warehouse; Montreal Street Ry., car barns and power house; Canadian Iron and Foundry Co., industrial plant at Fort William, Ont.; Montreal Light, Heat and Power Co., power house on Soulanges canal; C.P.R., additions to Windsor St. station, Montreal; Hamilton Cataract Power, Light and Traction Co., terminal station at Hamilton, Ont. In general contracting and engineering its contracts include 140 miles of the G.T. Pacific Ry. from Touchwood Hills to Saskatoon, Sask., and hydro-electric development on the Soulanges canal for the Montreal Light, Heat and Power Co.

Lake Superior Corporation.—The Ontario Government has extended for a period of five months the guarantee loan of $1,000,000 to the Lake Superior Corporation, which fell due Nov. 1. It was felt that the market conditions were not favorable to paying off the loan, and the holders of the certificates consenting to the extension, an agreement carrying it out was authorized by the Government.

The following circular has been issued to employes on C.P.R. eastern lines: "Enginemen on passenger and freight trains leaving a terminal or at any point where the make-up of their train has been changed, must, after starting, but before running 1,000 ft., apply the air brake sufficiently to know that it is in good working order through the entire train. The conductor of every passenger train must, one mile from every station at which it is to meet a train superior to it by class or direction or by train order, give communicating signal 16e, receive steam whistle signal 14d, and the engineer will immediately make running test of brake in compliance with air brake rule 4a."

Canadian Northern Railway Construction.

Canadian Northern Quebec Ry.—Application will be made at the current session of the Dominion Parliament for an act extending the time for the construction of a branch from the main line between Montreal and Joliette, to Rawdon, Que., touching at St. Jacques, and authorizing the construction of an extension of such branch beyond Rawdon to near Lake Archambault, in Montcalm county. It has also given notice that it will ask for an act authorizing it to enter into agreements for any purpose mentioned in the Railway Act, 1903, sec. 281, with the Canadian Northern Ontario Ry., the Canadian Northern Ry., or any of them; to lease its lines to either of them; confirming an issue of 4% perpetual debenture stock, and for other purposes.

The Minister of Railways was asked Oct. 31, to approve of plans for the extension of the company's railway from Quebec to Quebec Bridge. Objection was made on behalf of the National Transcontinental Ry. Commission and the matter was held over pending the consideration of the plans for joint terminals.

Canadian Northern Ontario Ry.—The company will apply at the current session of the Dominion Parliament for an act authorizing the construction of the following lines of railway in Ontario: From Washago westerly to Lake Huron near Kincardine. From Arnprior southerly to the St. Lawrence River between Kingston and Brockville. From Pembroke southwesterly to Lake Ontario between Toronto and Belleville. From the Toronto-Ottawa line northwesterly to Georgian Bay near Collingwood or Owen Sound. From the Toronto-Ottawa line westerly passing through or near Toronto, Hamilton, and London to Windsor, with branches to St. Thomas and Sarnia, and a branch or loop north of Toronto. From the Niagara River northwesterly, passing through or near Hamilton to Lake Huron, near Goderich. From Lake Erie west of Port Colborne northerly, passing through or near Brantford or Berlin, to the Georgian Bay. From a point near Washago to the Georgian Bay east of Collingwood. From the Montreal-Ottawa line north of Montreal westerly to connect with the authorized line in the county of Leeds or Lanark. The company also asks for power to issue bonds or other securities to the extent of $30,000 a mile in respect to such lines and authorizing amalgamation with or leasing agreements to the Canadian Northern Quebec Ry.

Grading has been completed for about 36 miles from Hawkesbury towards Ottawa, Ont. The question of the entrance of the line into Ottawa has not been settled, the city having entered some objections, and as a result the plans for the route into the city of the line from Hawkesbury, and of the line from Toronto to Ottawa, have not been approved of by the Minister of Railways.

The section of line formerly known as the James Bay Ry., between Toronto and Parry Sound, Ont., 149 miles, was opened for traffic Nov. 19, when a service of one train a day each way was put on. The certificate of the Board of Railway Commissioners enabling the line to be opened was given Nov. 8, and the official inspection of the engineers of the Department of Railways took place Nov. 16. Construction is being proceeded with between Parry Sound and Sudbury. A plan showing a deviation of the route of this portion of the line, passing through unsurveyed territory in the townships of Cox, Sarvis, Laura, Secord, Dill, Cleland and Neelon, mileage 67.8 to mileage 107.8 north of Parry Sound, has been filed at North Bay. This practically covers the route between French River and Wahnapitae.

A contract is reported let to James Conmee for the construction of a line from Nepigon, northerly to the line of the National Transcontinental Ry. between Moncton and Winnipeg. The line has already been located from the C.P.R. for the greater part of the distance, the work having been done by the Nepigon Ry. Co., prior to the charter being sold to Mackenzie, Mann & Co. It is also reported that an arrangement has been made with the C.P.R. by which trains will be run over that line from the Canadian Northern Ry. station at Port Arthur, until the latter company's line easterly shall have been constructed.

The Canadian Northern Ry. will apply at the current session of the Dominion Parliament for an act increasing the powers of the company with reference to the issue of bonds and other securities; extending the time for the construction of the various authorized lines, and authorizing the construction of the following extensions or branches: From Humboldt, Man., to Calgary, Alta.; from tp. 29, r. 7, w. 3rd m., southwesterly to between Craik and Bladworth on the Qu'Appelle, Long Lake and Saskatchewan Ry.; from tp. 5, r. 15, w. 2nd m., northwesterly to tp. 16, r. 27, w. 2nd m.; from near South Battleford, Sask., westerly to tp. 44, r. 27, w. 3rd m.; from North Battleford, northwesterly to tp. 59, r. 1, w. 4th m.; from Strathcona southerly to Calgary, Alta.; from Regina, Sask., southwesterly to the International boundary; from Saskatoon, Sask., southwesterly to the South Saskatchewan River; from near Edmonton, Alta., to the Pacific Coast; from near the forks of the Athabasca and McLeod Rivers southwesterly to the headquarters of the McLeod River; from Battleford, Sask., westerly for 100 miles.

There has been deposited with the Minister of Public Works at Ottawa, a plan and description of the location of a proposed steel dock, upon a water lot, lying between Lorne St. and Lincoln St., produced in the harbor of Port Arthur, Ont. The approval of the Government has been asked for the construction of the dock by the company.

The agreement between the company and the Winnipeg City Council with respect to the closing of lanes and streets at Fort Rouge, had not been signed November 12. The plans for the company's roundhouse at Fort Rouge have been approved by the City Council.

Grading is reported to have been completed from Oakland, on the Portage la Prairie-Delta branch, as far as Sandy Bay, on the west shore of Lake Manitoba, and that work will be resumed at that point in the spring, it being intended to carry the line to Makinak, or some other convenient point on the line to Prince Albert.

The tracklaying gang having completed the season's work on the Swan River branch moved to Etomami, and started work laying steel on the grade in the direction of Pas Mission

A contract is reported let to Jas. Cowan for the delivery of 1,000,000 ties, 6,000,000 ft. of logs, and 300,000 ft. of piling at various points on the C.N. Ry. lines, where construction will be gone on with during the season of 1907.

The branch from North Battleford, Sask., to Battleford, was opened for traffic Nov. 8.

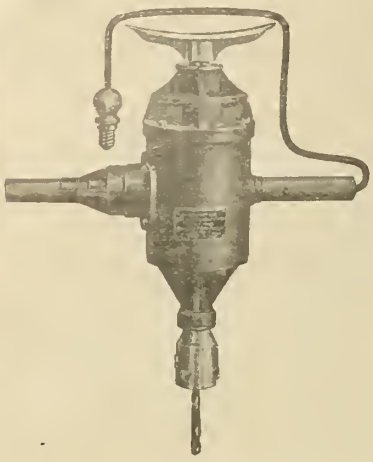
The extension of the line from Edmonton to Morinville, Alta., was opened for traffic, Oct. 26, and a service of three trains a week is being operated over it. Tracklaying is being proceeded with on the line from Edmonton to Stoney Plain. (Nov., pg. 649).

Dalmeny to Carlton, Sask.—Construction has been started upon a line from Dalmeny, mileage 499.3 from Winnipeg, to Carlton, on the Saskatchewan River. Owing to the lateness of the season, however, only four or five miles will be graded this year. The grading is being done by Mackenzie, Mann & Co., for the Canadian Northern Ry.

60% EFFICIENCY

IS THE RECORD OF OUR AIR-COOLED

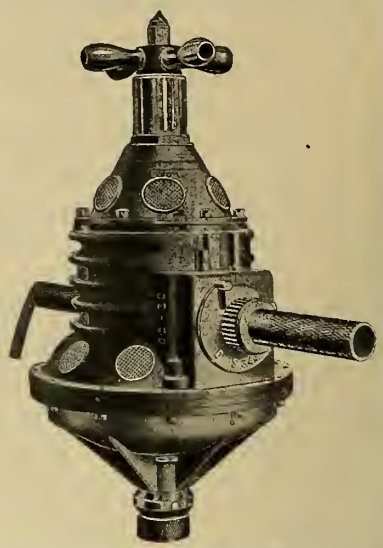
DUNTLEY ELECTRIC DRILLS



Breast Drill, Weight 13 lbs. Capacity ⅛ inch in steel or iron

Hence they are being rapidly installed wherever current is available, also where air supply is limited; the drilling and reaming being performed by these drills and air used exclusively for riveting and chipping.

WRITE FOR DESCRIPTIVE CATALOGUE AND PRICES.



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Windsor St. Station, Montreal.—The new story at the Windsor St. station was taken possession of by the company Nov. 1. The addition is not subdivided into offices, but has been completed as one big chamber. It is being utilized by the accounting and engineering departments, which have hitherto been spread over a number of small offices. Their former offices will be given over to other departments which are now overcrowded. An addition 100 ft. long, and the full width of the express building, is being constructed for the baggage department.

Glen Yards.—The company has purchased 139,386 ft. of land in Westmount, north of its tracks near the corner of St. Catharine St. and Victoria Ave. The object of the purchase is to provide a suitable entrance to the recently completed Glen yards.

Angus Shops.—Plans are reported completed for the erection of a paint shop at the company's Angus, Montreal, shops. The new building is estimated to cost $70,000.

Spur Line at Port Rouge.—The C.P.R. is making application to the Board of Railway Commissioners to sanction the construction of a spur line from near the Port Rouge station, Que., 2,800 ft. in length, with a branch therefrom 450 ft. long.

Montreal-Toronto Line.—The party under D. Hillman has completed the survey for the new C.P.R. line between Port Hope and Bowmanville, Ont. The line secured is said to be almost level, and will not exceed at any point a gradient of 0.3%.

Georgian Bay and Seaboard Ry.—At a meeting in Toronto, Nov. 12, a resolution was passed approving of the leasing of this projected line from near Peterborough to Victoria Harbor, Ont., to the C.P.R. We were advised, Nov. 19, that no contract had been let for the construction of this railway.

Toronto-Sudbury Branch.—An official inspection of this line as far as Shaw's Creek, about seven miles from Bala, Ont., was made by D. McNicoll, Vice-President, Nov. 9, and it was announced that the line would be opened for traffic Dec. 1.

Walkerton and Lucknow Ry.—The shareholders of this company, at a meeting in Toronto, Nov. 12, approved of a lease of the line now under construction to the C.P.R., for 999 years. Grading between Proton and Walkerton, Ont., is well advanced. An application to the Board of Railway Commissioners for a crossing over the G.T.R. near Hanover, has been held over pending an inspection of the locality by the Board's engineer.

Guelph and Goderich Ry.—D. McNicoll, Vice-President C.P.R., made an inspection of the line as far as Milverton, Ont., Nov. 8, and the line was opened for traffic to that point Nov. 15. Hitherto the trains only ran from Guelph to Elmira. The question of the taking of certain lands at Goderich, claimed by the G.T.R., came before the Board of Railway Commissioners at Ottawa, Oct. 25, but a decision was not rendered.

Woodstock to Brantford.—Local reports state that the C.P.R. has informed the Brantford Board of Trade that it had decided to make a start upon the construction of a line from Woodstock to Brantford, Ont., in the spring. An officer of the company, who should be in a position to know, advises us that he is not aware of any such intimation having been given.

Sarnia.—The C.P.R. is reported to have acquired a large waterside property at Sarnia, Ont., formerly owned by the Sarnia Bay Timber, Lumber and Salt Co.

Winnipeg Beach to Gimli.—The extension from Winnipeg Beach to Gimli, Man., 11 miles, was completed Oct. 20. A dock, about 500 ft. in length, is to be constructed at Winnipeg Beach, the piles and timbers for which have already been delivered.

Gretna to Portage la Prairie, Man.—We were advised, Nov. 12, that the U.S. press reports that the C.P.R. was behind a project to construct a line from Gretna to Portage la Prairie, Man., is incorrect.

Lauder Extension.—A train service has been put on this extension from Lauder westerly to Broom Hill, Man., 16 miles. It is proposed to extend the branch for a further distance of about 30 miles.

Reston-Wolseley Branch.—The construction of this line has been completed from Reston, on the Arcola section, to Kaiser, Man., about 98 miles, and a train service has been put in operation. It is expected that the line will be completed to Wolseley, Sask., early in 1907.

Pheasant Hills Branch.—We were advised Nov. 12, that all the contracts for grading upon the extension of this branch from the present terminus at Strassburg, Sask., to Saskatoon were let. The contractors were working on the route and considerable grading was being done. It was expected to have the grading sufficiently far advanced to allow tracklaying to be completed to Saskatoon by the fall of 1907.

Bridge at Saskatoon, Sask.—In connection with the extension of the Pheasant Hills branch into Saskatoon, a concrete and steel bridge is to be erected over the Saskatchewan River, the contract for which is expected to be let at an early date.

Regina Northerly.—Recent press reports stated that the C.P.R. had decided to construct a line paralleling the Qu'Appelle, Long Lake and Saskatchewan Ry., and that engineering parties were in the field making the location surveys. We were advised Nov. 12 that it may be decided to construct a line northerly from Regina, to meet the Pheasant Hills branch now under construction into Saskatoon. Such a branch would give a connection between the main line to Saskatoon, and would open up a good country north of Regina Nothing, however, had been decided in the matter.

Belly River Bridge.—We were advised, Nov. 17, with reference to the construction of a bridge over the Belly River, at Lethbridge, Alta., that a contract had not then been let, and would not be for some considerable time.

Wetaskiwin Easterly.—Steel has been laid on this extension as far as Hardisty, on the Battle River, 105 miles east, but a train service is at present operated only as far as Daysland. A bridge over the Battle River is being constructed. It will be 3,680 ft. long and 95 ft. above high water mark. It is expected that the line will be opened for passenger traffic to Hardisty at an early date.

Strathcona-Edmonton Bridge.—A conference was held at Edmonton, Alta., Nov. 13, between W. Whyte, Second Vice-President, and R. R. Jameson, General Superintendent Western Division, and the city authorities, respecting the high level bridge across the Saskatchewan River into Edmonton. The plan under discussion shows a bridge about a mile long, with railway and tramway tracks in the centre and on each side a vehicle traffic way and a footpath. The cost of the bridge will be about $1,000,000.

Tunnel at Palliser.—The tunnel at Palliser, B.C., has been completed, and the Board of Railway Commissioners having given the necessary certificate, the transcontinental trains are being operated through it.

Nicola, Kamloops and Similkameen Ry.—Tracklaying has been completed into Nicola, B.C., and ballasting is well forward. The survey parties have secured an easy gradient into Aspen Grove, the heaviest gradient between Quilchena and that point being 1.25% It is expected to start grading between Nicola and Quilchena at an early date.

Esquimalt and Nanaimo Ry.—Several survey parties are in the field not only examining the lands embraced in the grant to the company, but upon probable extensions of the line. F. Shepherd is engineer in charge of the latest party to be sent out.

Minneapolis, St. Paul and Sault Ste. Marie Ry.—We have been officially advised that there is no foundation for the press reports referred to in our last issue that the company had decided to extend its lines to Seattle, Wash. (Nov., pg. 643).

National Transcontinental Railway.

Survey work upon the section easterly from Quebec to Moncton is being completed, all the parties with one exception having reported. The location of the line between Quebec and Grand Falls, and between Chipman and Moncton, has been completed, and the first location surveys between Grand Forks and Moncton have been made. The question of the route between these two points has not been finally decided. The arrangement of the terminals at Quebec is being considered, and the commissioners have been inspecting various blocks of land required for the terminals, as well as for the railway connections.

In connection with the terminals in Winnipeg, it is reported that the arrangement made with the Canadian Northern Ry. includes the construction of the terminals by that company, and the payment by the commissioners and the G.T. Pacific Ry., of an annual rental of $65,000 a year therefor.

The route of the line west of Winnipeg has been the subject of considerable discussion at Ottawa, and as provisionally approved the line will run through the southerly end of Tuxedo park, Winnipeg, across the C.P.R. Gretna branch, along Grant and Woodward Ave., paralleling the latter to Pembina Road, where a junction will be made with the Canadian Northern Ry. track. The Government has approved of the plans for 25 miles of the route easterly from Portage la Prairie. The question of terminals at Edmonton was also discussed. The Minister of Railways desires that union terminals be arranged for. The Canadian Northern Ry., as the pioneer line in the city, desires that its terminals be made use of. An arrangement as to terminals has been made between the G.T. Pacific Ry. and the Edmonton City Council, and the Minister of Railways says unless the three companies can agree upon joint plans, the department will approve of this agreement. The company has decided to use the Yellowhead Pass for its line from Edmonton to Prince Rupert, B.C. The reports of the engineers show that a line with a gradient of 21 ft. to the mile can be obtained.

Thos. Dunn, who returned to Vancouver, B.C., from Prince Rupert, Nov. 1, in an interview said: "Engineer Pillsbury, of the G.T.P. Ry., has 70 men at work laying out the townsite, and already the first street, which is 100 ft. wide, and starts at the wharf, is being planked. The clearing of 300 acres of the townsite will be commenced right away. Lumber for the construction of the houses which the railway company will build at Prince Rupert had commenced to arrive. J. Moore, locating engineer of the G.T.P., is surveying the route the line will take on Kaien Island. There are five survey parties on the island also. Dominion Hydrographic Engineer Dodge is making surveys of the harbor and contiguous waters. Prince Rupert itself has a water frontage about 12 miles long (Nov., pg. 649.)

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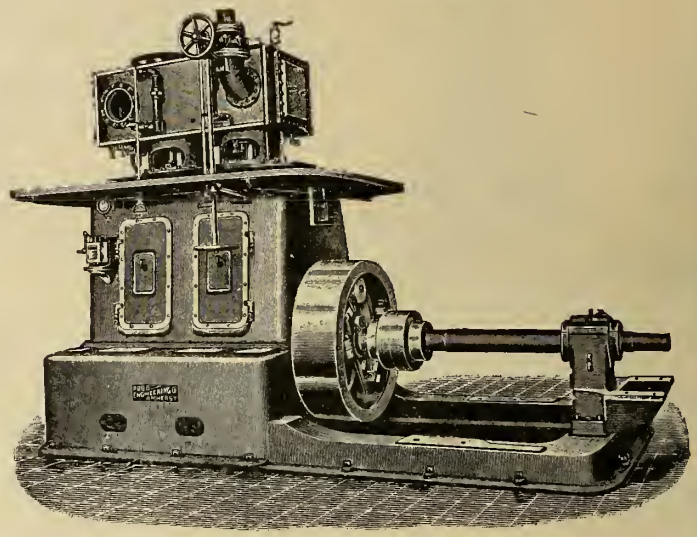

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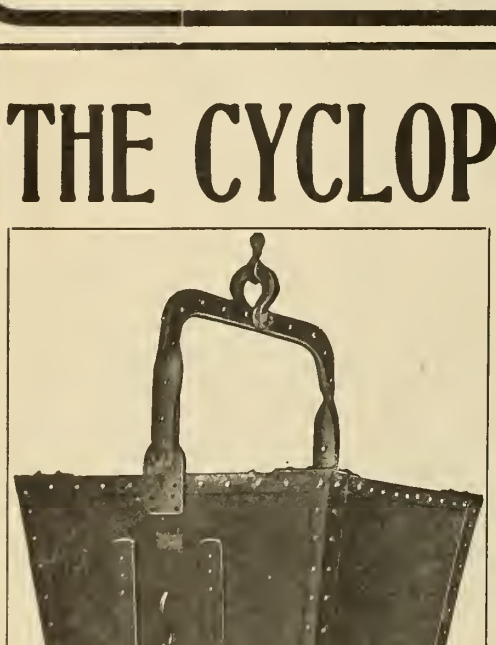

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Turcot Roundhouse.—Arrangements are said to have been completed for the construction of additional roundhouse accommodation at Turcot, Montreal.

Ottawa Division.—An 85 car siding has been completed at Casselman, Ont.; a 100 car siding at Alexandria, Ont.; a 13 stall roundhouse at Madawaska, Ont.; and a 12 stall roundhouse at Depot Harbor, Ont.

Point Anne, Ont.—A contract has been let to Rogers and Queck, for the construction of a six mile line from milepost 217 to the Lehigh Portland Cement Co.'s works at Point Anne, near Belleville, Ont.

Kingston, Smith's Falls and Ontario Ry.—It is stated officially that the G.T.R. has not acquired the charter for the construction of this railway, but has entered into an arrangement for the operation of the line after it is completed. Application has been made to the Board of Railway Commissioners for the approval of the plans.

Bank St. Subway, Ottawa.—Engineers representing the G.T.R. and the Ottawa City Council have accepted excavation and concrete work upon the subway at Bank St., and are preparing to erect the steel bridge. It is expected that the work will be completed early in Dec.

Toronto Repair Shops.—Following the opening of the freight yards and roundhouses at Mimico, Ont., it is said that it has been decided to remove the repair shops, now located at the foot of Spadina Ave., to Mimico. The removal of these shops will enable the company to increase its track space at the Union Station yards.

Buffalo Grade Crossings.—The Grade Crossings Committee has adopted a plan which has been agreed to by the G.T.R. and the other railways entering Buffalo, N.Y., for the abolition of grade crossings.

Detroit Belt Line Ry.—The G.T.R. and the Michigan Central Rd. have taken over the new outer belt line railway, built by Jos. Berry and his associates.

Detroit Improvements.—A roundhouse and machine shop, to cost $75,000, are under construction near Milwaukee Jct., Detroit, Mich. The buildings are of concrete. Plans for other improvements have been prepared and are under consideration.

We were advised Nov. 28, that the press report stating that the C.P.R. had ordered locomotives in Great Britain was untrue.

MAINLY ABOUT PEOPLE.

J. T. Davis, railway contractor, Ottawa, fell into the Louise basin, Quebec, Nov. 6, and broke a kneecap.

H. L. Jordan, C.P.R. divisional engineer of construction, Montreal, died at St. John, N.B., Nov. 8, aged 35.

B. J. Coghlin, railway supplies manufacturer, etc., has returned to Montreal after a holiday trip to Ireland.

Sir Wm. Van Horne, Chairman of the Board C.P.R., has resigned from the directorate of the Dominion Coal Co.

M. Duff, chief clerk in the office of the manager C.P.R. steamship lines, Montreal, was married in Ottawa, Oct. 26.

L. Kennedy, an oldtime civil engineer and surveyor at Winnipeg, died in the General Hospital there, aged 71, Nov. 17.

F. S. Stocking, Quebec Central Ry. city ticket agent, Quebec, has been elected President of the Quebec Snowshoe Club.

F. H. Armstrong, formerly General Passenger Agent, Dominion Atlantic Ry., Kentville, N.S., has removed to Winnipeg.

P. R. Jarvis, who died at Stratford, Ont., Oct. 29, aged 82, was father of T. N. Jarvis, Vice-President of the Lehigh Valley Rd.

L. K. Jones, I.S.O., Secretary of the Department of Railways and Canals, Ottawa, spent most of Nov. in Western Canada.

D. McNicoll, Vice-President C.P.R., Montreal, has named his new house on Forden avenue, Westmount, Montreal, "Bracleigh."

Hon. C. S. Hyman, Dominion Minister of Public Works, has gone south, having been advised by his physician to take a complete rest.

J. Galt, C.E., of Toronto, has purchased a property at Vernon, B.C., and will reside for a considerable part of the year there in future.

Jas. Oborne, General Superintendent C.P.R. Eastern Division, and Mrs. Oborne, returned to Montreal Oct. 28, after a trip to Europe.

Jno. Corrie, who died in Stratford, Nov. 15, aged 74, was for 10 years a track inspector on the G.T.R., leaving the service about 20 years ago.

W. Bell, Superintendent C.P.R. Sleeping, Dining and Parlor Cars at Winnipeg, was married recently at Parkhill, Ont., to Miss K. Wilson.

Mrs. Zimmerman, wife of M. Zimmerman, formerly General Manager, Brockville, Westport and Northwestern Ry., died at New York, Nov. 17.

Miss A. B. A. Darnbrough, daughter of J. C. Darnbrough, car tracer C.P.R. eastern lines, Toronto, was married there, Nov. 7, to T. R. Punchard.

The engagement is announced of J. J. Creelman, son of A. R. Creelman, K.C., chief solicitor C.P.R., to Miss K. Weeks, of Galveston, Tex.

Mrs. H. Baird, who died in Toronto Oct. 28, was the mother of Mrs. Campbell, wife of D. W. Campbell, Montreal, of the Elder-Dempster Steamship Co.

M .A. Pigott, of Hamilton, Ont., contractor for the Guelph and Goderich Ry., has entered suit against P. A. Peterson, Chief Engineer, for $5,000 for alleged slander.

F. Lingley, C.P.R. baggage master, St. John, N.B., was presented with a set of dining-room chairs by a number of friends, Nov. 8, on the occasion of his marriage.

J. A. Barnet, Superintendent and Electrical Engineer, Montreal and Southern Counties Ry., was married at Montreal, Nov. 14, to Miss E. J. Creighton, of that city.

Mrs. Wm. Baker, mother of S. A. Baker, Canadian Freight and Passenger Agent, Chicago Great Western Ry., Toronto, died at Morrisburg, Ont., recently, aged 71.

R. H. Dale, travelling auditor of the Canada Atlantic Ry. up to the time of its transfer to the G.T.R., and since then in private employ, died at Ottawa, Nov. 10, aged 49.

J. T. Gilhula, Trainmaster Pere Marquette Rd., formerly of St. Thomas, Ont., is a member of the Train Rules Committee, which was in session Nov. 5 at Chicago, Ill.

G. V. Gzowski, who was engaged on the C.P.R. engineering staff upon the construction of the Nicola, Kamloops and Similkameen Ry., died at Spence's Bridge, B.C., Nov. 9.

W. J. Pace, who recently resigned his position as Assistant Superintendent of the Canadian Northern Ry. at Edmonton, Alta., has been appointed Commissioner of Works for that city.

C. B. Smith was presented with a gold watch by the heads of the departments on retiring from the chairmanship of the Temiskaming and Northern Ontario Ry. Commission Nov. 5.

A. C. Dennis, heretofore Division Engineer G.T. Pacific Ry., Winnipeg, Man., has been appointed to a position on the construction staff of a new railway from Salt Lake to San Francisco, Cal.

R. Reford, Montreal, has promised to contribute $50,000 towards the endowment fund of McGill University, provided the $1,000,000 for which the Governors ask is contributed within a year.

W. S. Kinnear, Assistant General Manager Michigan Central Rd., is President of the Detroit Golf Club, and was recently defeated in the championship games by E. W Alexander.

The late W. T. Jennings, C.E., left his collection of plans, specifications, notes, etc., to the School of Practical Science, Toronto, in the event of his son, G. T. Jennings, electing not to take them.

Col. Henry Strange, who died at Rockwood, Ont., recently, aged 92, was engaged on surveys for the construction of the G.T.R. between Toronto and Sarnia, and also for the Great Western Ry.

Jos. Cottrell, who was driver of the first G.T.R. locomotive between Montreal and Toronto, in 1854, and who retired from active service a few months ago, died at Guelph, Ont., recently, aged 77.

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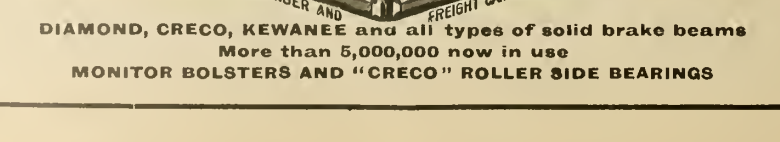

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G. L. Griffiths, who has been engaged on the engineering staff of the Guelph and Goderich Ry. at Milverton, Ont., has arranged to practice in Stratford, Ont., as a civil, hydraulic and sanitary engineer.

W. D. Chisholm, for many years private secretary to the late John Bell, K.C., solicitor to the G.T.R., died at Belleville, Ont., Oct. 23, from typhoid fever. His wife was Mr. Bell's youngest daughter.

J. R. Watson, who retired from active railway work when the Fitchburg Ry. was absorbed by the Boston and Maine Rd., and who was well known among Canadian railway men, died recently.

A. R. Pyne was presented with a gold watch by the C.P.R. employes at Brandon, Man., on his promotion from the position of locomotive foreman at Brandon to that of Master Mechanic at Moose Jaw, Sask.

Admiral Markham, who was one of the commanders of the last British Arctic expedition, and who subsequently wrote on the navigation of Hudson Bay, has retired from the British Navy, after 50 years' service.

C. B. Smith, Consulting Engineer to the Temiskaming and Northern Ontario Ry. Commission, Toronto, addressed the Canadian Club at Hamilton, Ont., Nov. 8, on the development of electrical power in Canada.

Alex. Clark, for 30 years an employe of the G.T.R. locomotive shops, Point St. Charles, Montreal, who died there Nov. 15, aged 73, was father of Jas. Clark, Master Mechanic, Quebec and Lake St. John Ry., Quebec.

L. H. King, registrar of contracts New York Central Lines, addressed the engineering students and a number of railway men at McGill University, Montreal, Nov. 7, on "Railroading Indoors, Administration and Finance."

Hon. E. B. Garneau has been elected President, and J. Hone, jr., C.P.R. City Passenger and Freight Agent, Vice-President of the Quebec Business Men's League, which has been formed to promote the interests of the city.

W. E. Ireland, heretofore chief clerk in the G.T.R. local freight office, Toronto, was presented with a clock by the office staff, on leaving the service to enter that of the Canadian Northern Ontario Ry., as local freight agent at Toronto.

C. Price Green was presented with a travelling bag by the District Passenger Agent of G.T.R., Toronto, and staff, on his leaving the chief clerkship of that office to enter the Canadian Northern Ontario Ry.'s passenger department service.

F. L. Wade, of the C.P.R. city ticket office, Quebec, was married there recently to Miss P. Shaw. The C.P.R. local staff presented him with a cabinet of cutlery, and the C.P.R. passenger staff at St. John, N.B., presented him with a cut glass water set.

A. E. Killam, Inspector of Bridges and Building, I.C.R., Moncton, N.B., was elected Chairman of the Executive Committee of the Association of Railway Superintendents of Bridges and Buildings, at the annual convention recently held at Salt Lake City, Utah.

Miss Florence Gibson, daughter of Senator W. Gibson, contractor, etc., Beamsville, Ont., was married there recently to J. M. Eastwood, of Hamilton, Ont. Miss L. Hays, daughter of the Second Vice-President and General Manager G.T.R., was one of the bridesmaids.

A. McLellan, who has completed 31 years' service as conductor on the Moncton-Campbellton run on the Intercolonial Ry., was presented with a Morris chair by the local commercial travellers. Prior to entering railway service he drove a stage between Amherst and the Cobequid Mountains.

The Toronto Board of Trade will entertain W. Mackenzie, President; D. D. Mann, Vice-President, Canadian Northern Ry., and the other directors and the principal officials of that railway, at a dinner at the King Edward Hotel, Toronto, Dec. 14, in connection with the opening of the Toronto-Parry Sound section of the line.

Sir E. P. Stracey, Bart., a member of the firm of Sperling and Co., London, Eng., arrived in Montreal Nov. 1, for the purpose of making a tour of the country. Sperling and Co. is the London financial firm through which the Canadian Northern Ry. and the British Columbia Electric Ry. companies' securities are placed on the market.

W. McNab, Assistant Engineer, G.T.R., Montreal, was one of the railway officials engaged to lecture before the railway classes of the University of Chicago. He selected for his subject "Railway Development in Canada." The series of lectures, which cover every department of railway work, has just been published in one volume by the University.

Samuel Leonard Shannon, who has been appointed Comptroller and Treasurer of the Intercolonial Ry. at Moncton, N.B., was born at Halifax, Jan. 18, 1862. He entered the Dominion Civil Service as a clerk in the Department of Railways and Canals at Ottawa, in Jan., 1881, and was appointed Chief Accountant of the Department Oct. 18, 1889, holding that position until his recent appointment.

K. J. C. Zinck, who has been appointed Maintenance of Way and Construction Engineer Algoma Central and Hudson Bay Ry., has occupied various positions with the Pennsylvania Lines, Pittsburg and Lake Erie Ry., Chicago and North-Western Ry., Oregon Short Line, Chicago, Rock Island and Pacific Ry., and the G.T. Pacific Ry., prior to being appointed to his present position.

W. B. Way, who has been appointed Trainmaster C.P.R. at White River, Ont., was born at Bowmanville, Ont., Aug. 22, 1867, and entered railway service Sept., 1884, his record being: 1884 to 1888, telegrapher, North Bay, Ont.; 1888 to 1899, train dispatcher, North Bay; 1899 to 1903, Chief Train Dispatcher, Chapleau, Ont.; 1903 to Nov., 1906, Chief Train Dispatcher White River, Ont.; entire service with C.P.R

W. D. Robb, whose portrait appears on the first page of this issue, was born at Longueuil, Que., Sept. 21, 1857. He entered railway service as a machinist's apprentice in the G.T.R. shops at Montreal in 1873, and became charge hand in the erecting shops of the works July, 1882, remaining in that position until Jan., 1883, since which his record has been: July, 1883, to Aug., 1883, night roundhouse foreman at Montreal; Aug., 1883, to Jan., 1897, locomotive foreman at Belleville; Jan., 1897, to July, 1901, Master Mechanic at Toronto. He was then appointed Acting Superintendent of Motive Power at Montreal, and on May 1, 1902, was appointed Superintendent of Motive Power, which position he still holds.

J. Halstead, who has been appointed Assistant General Freight Agent C.P.R. at Calgary, Alta., entered railway service in Jan., 1892, acting successively as message boy and clerk in the C.P.R. freight offices at London, Ont., to May, 1894; May, 1894, to July, 1897, billing clerk Toronto local freight offices; July, 1897, to July, 1901, stenographer General Freight Department, Toronto; July, 1901, to May, 1902, chief clerk General Freight Department, Winnipeg; May, 1902, to Nov., 1902, Travelling Freight Agent, Winnipeg; Nov., 1902, to Feb., 1906, chief clerk General Freight Department, Vancouver, B.C.; Feb., 1906, to Oct., 1906, freight and passenger agent, Tacoma, Wash.; entire service with C.P.R.

Thos. Williams, whose position as Chief Accountant and Treasurer of the Intercolonial Ry., at Moncton, N.B., has been abolished, had six years' service with the London and North-Western Ry. in England, after which he entered the Canadian Government railway service in 1873, in the accountant's department; was appointed Accountant of the Prince Edward Island Ry. in 1875, and in 1882 became Chief Accountant and Treasurer I.C.R. He was Vice-President of the I.C.R. Employes' Insurance Association, and was a member of the commission appointed by the Minister of Railways to prepare plans for an employes' pension fund. Mr. Williams is still in the I.C.R. service, but will probably be placed on the superannuation list in the near future, though his services may be utilized in some other capacity.

Per Diem Rules.—At the fall meeting of the American Railway Association at Chicago, Oct. 24, the principal matter under discussion was the question of advancing the per diem rate for the use of interchange cars. After a lengthened discussion it was decided to take a letter ballot of the members upon two proposals, one to increase the rate to 50c., and the other to increase the rate to 75c. per day, the new rate, whichever might be adopted, to go into effect July 1, 1907. This conclusion was not quite satisfactory to a number of railways, including the G.T.R., representing in all 780,000 cars, and a movement was started to arrange to have an increased rate put in force at an earlier date. Other lines representing about 220,000 cars subsequently joined the movement and a meeting of the lines represented in the per diem agreement was held at Chicago, Nov. 9, for the purpose of deciding whether the increased rate should be 75c. or 90c., and to declare it to be in force from Jan. 1. F. H. McGuigan, Fourth Vice-President G.T.R., was elected a member of the committee on nominations. The next meeting of the association will be held at Chicago, April 24, 1907. At the meeting held on Nov. 9, a "Car Hire Agreement" was signed by the representatives of 41 companies, owning 1,100,000 freight cars, under which the per diem rate for the use of cars owned by parties to this agreement will be made 50c. per day without any time limit for the return of cars. The arrangements for the meeting were made by lines owning 824,500 cars, the G.T.R. being the only Canadian line represented. It has 35,000 cars. The agreement made at the meeting will run to July 1, 1907, and no company owing fewer than 1,000 cars will be accepted as being party to it. The New York Central Lines, Wabash Rd., Southern Rd., and Atlantic Coast Line are not parties to the agreement, as while favoring an increase of the per diem rate, they are of opinion that the increase should be made through the American Railway Association.

The Dominion Dredging and Construction Co. has been incorporated under the Dominion Companies' Acts, with a capital of $145,000 and offices at Ottawa, to acquire the present business of the Dominion Dredging and Construction Co., and to extend the same. The provisional directors are: E. A. Larmouth, W. A. Cameron, R. G. Stewart, C. E. Stewart, E. R. McNeill, Ottawa.

United States engineers have completed plans for presentation next session of Congress for a new lock at Sault Ste. Marie, Mich. The proposal is to construct a lock 1,350 ft. long, 75 to 80 ft. wide, and 20 ft. deep, just north of the present Poe lock. The Lake Carriers' Association is urging that the work be rushed so that the new lock will be available for navigation in 1909.

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TRANSPORTATION APPOINTMENTS.

Algoma Central and Hudson Bay Ry.—K. J. C. Zinck has been appointed Maintenance of Way and Construction Engineer, to assume the duties performed by the late G. W. Stadly.

Board of Railway Commissioners—H. A. K. Drury, Assistant Engineer, is now located at Winnipeg, his territory being west of Winnipeg and such adjoining territory east thereof as it may be necessary to employ his services in, for the investigation of accidents, inspection of lines, and other matters under the Commissioners' jurisdiction.

Canadian Government Railways.—S. L. Shannon, heretofore accountant for the Department of Railways and Canals, Ottawa, has been appointed Comptroller and Treasurer of the Intercolonial Railway. Office, Moncton, N.B.

The office of Chief Accountant and Treasurer, heretofore held by T. Williams, has been abolished and he has been assigned to other duties.

W. C. Little has been appointed Accountant of the Department of Railways and Canals at Ottawa, succeeding S. L. Shannon.

G. Bell has been appointed Assistant Accountant of the Department, succeeding W. C. Little.

Canadian Northern Ontario Ry.—W. Phillips, General Eastern Agent, Canadian Northern Ry., has also been appointed General Freight and Passenger Agent, Canadian Northern Ontario Ry.

B. A. Bennett has been appointed ticket agent at Toronto. The company will have ticket offices in the Union Station and also at 52 King St. West.

W. H. McEwan has been appointed train dispatcher. Office, Toronto.

W. E. Ireland, heretofore chief clerk in the G.T.R. local freight agent's office, Toronto, has been appointed local freight agent C.N.O.R., Toronto.

Canadian Pacific Ry.—R. Mackenzie has been appointed divisional car foreman Atlantic Division, with headquarters at McAdam, N.B.

C. W. P. Ramsey, has been appointed Acting Division Engineer of Construction, lines east of Montreal, succeeding H. L. Jordan, deceased. Office, Montreal.

H. P. Timmerman heretofore General Superintendent Ontario Division at Toronto, has been appointed General Superintendent, Eastern Division, at Montreal, vice J. Oborne, transferred.

C. F. Rydberg, heretofore General Car Foreman, Angus Car Shops, Montreal, has been appointed Superintendent Angus Car Shops.

The following changes have been made in the locomotive foremen on the Eastern Lines: T. R. Reynolds has been transferred from Smith's Falls to Toronto Jct., B. Pendleton has been transferred from London to Smith's Falls, W. J. Brown has been transferred from Toronto Jct. to London.

J. Oborne, heretofore General Superintendent Eastern Division, at Montreal, has been appointed General Superintendent Ontario Division, at Toronto, vice H. P. Timmerman, transferred.

J. R. Nelson, heretofore Superintendent District 1, Lake Superior Division, at North Bay, Ont., has been appointed Superintendent District 1, Ontario Division, at Toronto, vice G. Spencer, transferred.

G. Spencer, heretofore Superintendent District 1, Ontario Division, at Toronto, has been appointed Superintendent District 1, Lake Superior Division, at North Bay, Ont., vice J. R. Nelson, transferred.

The following night foremen have been appointed: J. W. Dodd, North Bay, Ont.; J. H. Mathers, Chapleau, Ont.; and H. Jacob, Schrieber, Ont.

W. B. Way, heretofore Chief Train Dispatcher, White River, Ont., has been appointed Trainmaster district 2, Lake Superior Division, vice J. R. Secor, transferred to North Bay, Ont., as conductor. Office, White River, Ont.

H. B. Stevens, heretofore dispatcher, has been appointed Chief Train Dispatcher district 2, Lake Superior Division, White River, Ont., vice W. B. Way, promoted.

G. F. Morton has been appointed acting locomotive foreman at Schrieber, Ont., vice T. Bate, resigned.

J. J. Scully, heretofore Superintendent District 3, Central Division, at Brandon, Ont., has been appointed Superintendent District 1, Central Division, at Kenora, Ont., vice O. O. Winter, transferred.

O. O. Winter, heretofore Superintendent District 1, Central Division, at Kenora, Ont., has been appointed Superintendent District 3, at Brandon, Ont., vice J. J. Scully, transferred.

J. Wilson, heretofore shop foreman at Brandon, Man., has been appointed locomotive foreman there, vice R. Pyne, promoted.

J. Cardell, formerly Master Mechanic at Calgary, Alta., will perform such duties as may from time to time be assigned to him by the Assistant Superintendent of Motive Power, Western Lines. He is still located at Calgary.

J. G. Norquay, heretofore road foreman of locomotives, district 2, Western Division, Cranbrook, B.C., has been transferred to a similar position in district 1, Western Division, Calgary, Alta., succeeding R. D. Smith, appointed District Master Mechanic at Cranbrook.

A. H. Eager, heretofore general foreman Mechanical Department at Cranbrook, B.C., has been transferred to a similar position at Calgary, Alta., vice W. Byrd, transferred to Revelstoke, B.C.

Dominion Atlantic Ry.—R. N. Parker has been appointed Acting General Passenger Agent, vice F. H. Armstrong, who has left the service.

Grand Trunk Pacific Ry.—A. McColloch, heretofore district engineer at Winnipeg, Man., is acting as Division Engineer, pending the appointment of a successor to A. C. Dennis, resigned.

Grand Trunk Ry.—J. F. Goodall, heretofore excursion clerk in the District Passenger Agent's office G.T.R., Toronto, has been appointed chief clerk, succeeding C. Price Green, who resigned to enter the Canadian Northern Ontario Ry. service.

E. A. Cabana having resigned, J. W. Farrell has been appointed Chief Train Dispatcher, District 2, East of Richmond, and Districts 1 and 3. Office, Island Pond, Vt.

C. A. Livingston has been appointed locomotive foreman at Fort Erie, Ont., vice I. Jefferis, resigned.

W. E. Costello having resigned to accept employment with another company, the office of Assistant Superintendent Western Division is abolished.

Richard Doyle is appointed Trainmaster districts 25 and 26; office, Battle Creek, Mich. Reports made to the Assistant Superintendent will hereafter be made to the Trainmaster.

The following agents have been appointed in Ontario: Morrisburg, G. E. Myers; Maitland, W. Wilson; Anson Jct., A. L. Wellman; Beaverton, A. F. McDonell; Brechin, D. B. White; Victoria Harbor, R. McDowell; Tiffin Elv., Midland, F. J. McCallum; Port Perry, W. A. Evans; Novar, W. S. Jones; Collingwood and Collingwood Wharf, R. W. Thom; Hagersville, S. B. Harrison; Grimsby, E. J. W. Perry; Copetown, W. E. Millar; St. George, W. A. McMonagle; Komoka, W. A. Abray; Pinkerton, I. J. Heldman; Milverton, H. A. Chalmers; Ethel, A. A. Smith; Bluevale, N. Haldenby; Eastman's Springs, J. O. Leduc; Galetta, J. W. Ritchie.

Halifax and Southwestern Ry.—A. Hector is reported to have been appointed City Ticket Agent at Halifax, N.S.

Klondike Mines Ry.—J. W. Astley, heretofore Chief Engineer, has been appointed Manager. Office, Dawson, Yukon.

H. D. Weeks, heretofore Superintendent of Construction, has been appointed Superintendent and Traffic Manager. Office, Dawson, Yukon.

Lake Shore and Michigan Southern Rd.—L. W. Landman, heretofore General Agent Passenger Department, has been appointed General Western Passenger Agent, Chicago, Ill.

Lehigh Valley Rd.—G. W. Hay, heretofore chief clerk to the General Baggage Agent G.T.R., Toronto, has been appointed General Baggage Agent and Division Passenger Agent L.V.R. Office, South Bethlehem, Pa.

Northern Pacific Ry.—W. E. Belcher has been appointed General Agent of the Freight Department, with office at Detroit, Mich. His territory includes Detroit and Wyandotte, Mich., in addition to the territory in Canada heretofore assigned to him. The Agency at Toronto has been abolished.

Temiskaming and Northern Ontario Ry.—J. L. Englehart has been appointed Chairman of the Commission, succeeding C. B. Smith, resigned.

Wabash Rd.—J. W. Jones, heretofore Trainmaster, St. Thomas, Ont., has been appointed Trainmaster at Moberley, Mo., succeeding W. D. Danley, resigned.

R. Doyle, formerly Trainmaster at St. Thomas, Ont., and since April, 1905, Superintendent at Moberley, Mo., has resigned.

J. A. McLardy, heretofore Chief Dispatcher St. Thomas, Ont., has been appointed Trainmaster Buffalo Division, succeeding J. W. Jones, promoted. Office, St. Thomas, Ont.

London, Erie and Tillsonburg Ry.—At the organization meeting recently held the following were elected officers and directors: President, E. C. Jackson, Tillsonburg, Ont.; Vice-President, V. Tillson, Tillsonburg; other directors: G. W. Teall, Vienna, Ont.; W. Warnock, Aylmer, Ont.; W. W. Thomson, London, Ont. The company has a charter to construct a railway from Port Burwell, on Lake Erie, to London, with a branch to Tillsonburg, and other lines. Several of those interested were officers of the Tillsonburg, Lake Erie and Pacific Ry., recently acquired by the C.P.R. The company has acquired the charter of the London, Aylmer and North Shore Electric Ry. We were advised, Nov. 14, that it was expected to proceed with construction next season. It was hoped that it would be possible to have done something this season, but the illness of the company's engineer delayed the completion of surveys.

The charge against C. M. Hays, Second Vice-President and General Manager G.T.R., for neglecting to provide third-class accommodation for passengers, and fares at 2 cents a mile, as provided for in the act incorporating the Grand Trunk Ry. Co., was heard at the Toronto Police Court, Nov. 21. W. Nesbitt, for Mr. Hays, objected to the jurisdiction of the Court, but admitted the facts. A conviction was entered on the technical offence, and a stated case has been prepared, for submission to the superior courts, upon the question of jurisdiction. It is contended on behalf of Mr. Hays that the case is one for damages in a civil court.

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Canadian Freight Association.

The fourth annual meeting of the Canadian Freight Association, Western Lines, was held in Winnipeg, Nov. 5. The Manager's report was accompanied by the following comments: "The net returns through freight inspection are large, but these direct earnings represent only a very small proportion of the actual saving. This saving is better illustrated by a comparison in the amount of fraudulent marking and misdescription of freight prevailing during 1902 and at present. This source of revenue in 1902, the Association's first year, amounted to more than 33% of the total revenue obtained through classification, while the income from this source for 1906 represented only 1.58%. In addition to this, the supervision of scaling of freight in transit, and at point of origin, has resulted in large direct and indirect earnings. While car rental earnings are not as great as might be expected, the results in availability of rolling stock are satisfactory. In 1902 it was generally conceded that it required about 10 days to turn a car at Winnipeg. To-day the average detention for the country in general is only 2.42 working days, figured from date of arrival to date of release. Taking eight days as the actual average detention in 1902, the difference in delay (5.58 days a car) means a saving in last year's operations (at 26 reporting stations alone) of 744,606 car-days, or the use of 2,040 cars for one year. In addition to this, we can also claim economy in yard operation, possible where congestion no longer exists. The increased terminal facilities at the most important points have materially assisted in the production of these results, making possible the thorough enforcement of the car service rules."

Following are the officers for the current year: President, W. B. Lanigan, General Freight Agent, C.P.R. Winnipeg; Vice-President, G. H. Shaw, General Traffic Manager Canadian Northern Ry.; Manager and Secretary-Treasurer, H. R. Patriarche; Freight Inspection Committee, Executive Committee and Board of Audit, W. B. Lanigan, G. H. Shaw; Car Rental Committee, J. A. MacGregor, J. P. Driscoll, A. Belbeck, A. Wilcox.

Railway Finance, Meetings, etc.

Alberta Ry. and Irrigation Co.—Gross railway earnings from July 1 to Oct. 31, $61,894.

Brockville, Westport and Northwestern Ry.—At the adjourned annual meeting held at Brockville, Ont., Oct. 22, it was decided to abolish the office of General Manager, heretofore held by M. Zimmerman, of New York, the Secretary to perform the duties of General Manager in future. Following are the officers and directors for the current year: President, E. R. Thomas, New York; Vice-President, J. Gerken, New York; Treasurer; O. F. Thomas, New York; Secretary, C. Heilshorn, New York; Superintendent, W. J. Curle, Brockville, Ont.; other directors: W. S. Buell, R. Bowie, W. H. Comstock, Brockville; J. Cumming, Lyn, Ont.; W. C. Fredenburg, Westport, Ont.; Assistant Secretary and Treasurer, A. P. Van Tuyl, New York.

Canadian Northern Quebec Ry.—A mortgage deed, dated Oct. 22, between the company, the British Empire Trust Co., and the National Trust Co., as trustees, and the Canadian Northern Ry. as third parties, securing an issue of 4% perpetual guaranteed debenture stock, has been filed with the Secretary of State, Ottawa.

Canadian Northern Quebec Ry.—The £1,000,000 of 4% perpetual debenture stock recently offered on the London, Eng., market at 98, is reported to have been fully subscribed. The stock sold up to 102 within a few days after the closing of the subscription lists.

Canadian Northern Ry.—Application is being made at the current session of the Dominion Parliament for an act increasing the powers of the company with reference to the issue of bonds or other securities.

Cuba Co.—The report of this company, signed by Sir Wm. Van Horne, President, showed gross earnings for the year ended June 30 to be $1,619,081 against $1,029,258; the operating expenses were $1,056,555 against $733,635. The net income was $287,860 against $37,443. The company owns 421 miles of line.

Esquimalt and Nanaimo Ry.—Following are the officers elected at the recent annual meeting of this company, which is owned by the C.P.R., but operated as a separate undertaking: President, W. Whyte, Winnipeg, Man.; Vice-President, R. Marpole, Vancouver, B.C.; Secretary-Treasurer, W. F. Salsbury, Vancouver, B.C.

Grand Trunk Pacific Ry.—The annual meeting was held in Montreal recently. Following are the officers and directors for the current year: President, C. M. Hays; Vice-President and General Manager, F. W. Morse; Second Vice-President, W. Wainwright; other directors: Sir C. Rivers Wilson, A. W. Smithers, Hon. N. C. Rothschild, Sir H. M. Jackson, Col. F. Firebrace, London, Eng.; E. H. Fitzhugh, W. H. Biggar, Montreal; Hon. G. A. Cox, E. R. Wood, Toronto; J. R. Booth, Ottawa; A. Brunet, Quebec, appointed by the Dominion Government.

With the exception of Sir C. Rivers Wilson and A. Smithers, President and Vice-President G.T.R., the other London directors are also directors of the G.T.R., and replace Lord Welby, J. A. Clutton-Brock, and Alex. Hubbard, who retired. The policy of the G.T.R. is that all of its directors shall serve in turn on the G.T.P. Board.

Grand Trunk Ry.—Application is being made at the current session of the Dominion Parliament for an act confirming and validating an agreement between the G.T.R. and the Canada Atlantic Ry., providing for the amalgamation of the two companies, and containing all such provisions as may be necessary to have the agreement carried into effect.

Great Northern Ry. of Canada.—The difficulties between the G.N. Ry. and the city of Quebec were finally adjusted at a meeting between officers of the company and the City Council recently. The council accepted the guarantee of Mackenzie, Mann & Co. for $22,277 arrears of taxes, and promised to consider the question of exemption, when the company had showed its intention of liivng up to the agreement which the old company made.

Joliette and Brandon Ry.—Application will be made at the current session of the Dominion Parliament declaring that this railway is an undertaking for the general advantage of Canada; approving a lease of the line to the C.P.R., and authorizing the issue of bonds, debentures or other securities of the company, secured by mortgage upon the company's railway and undertaking to an amount not exceeding $20,000 a mile of line constructed, or under contract to be constructed.

New Brunswick Southern Ry.—Col. H. H. McLean, President, stated Nov. 12, that the accounts of the company were being closed so that the business could be wound up, and the line put in a position to be sold. The property was for sale if a satisfactory offer was forthcoming.

Qu'Appelle, Long Lake and Saskatchewan Rd. and Steamboat Co.—A mortgage deed made Oct. 17 between the company, the British Empire Trust Co., and the National Trust Co., as trustees, and the Canadian Northern Ry., as third parties, securing an issue of 4% 30 year debenture stock, was filed with the Secretary of State, Ottawa, Nov. 6. The notice is signed by R. P. Ormsby, Toronto, Secretary Q., L.L. and S. R. and S. Co.

Shawinigan Falls Terminal Ry.—A meeting of shareholders was held at Montreal, Nov. 14, for the purpose of ratifying and confirming by-law 22, passed Oct. 30, authorizing the purchase from the Shawinigan Water and Power Co. of a line of railway and its accessories at Shawinigan Falls for $380,000 payable in stock and bonds of the company; authorizing the increase of the capital stock from $200,000 to $300,000, and authorize the directors to borrow £46,200 upon the credit of the company, and to issue bonds to secure the same. H. Murray, Bank of Ottawa Building, Montreal, is Secretary-Treasurer of the company.

Stanstead, Shefford and Chambly Ry.—This railway is leased for 99 years to the Central Vermont Ry., and the earnings, etc., are included in the annual report of that company. An annual meeting is held for the purpose of complying with the law and to keep the charter in existence. Following are the officers and directors for the current year: President, Hon. S. W. Foster; Vice-President, E. H. Fitzhugh; other directors: Hon. E. C. Smith, C. M. Hays, G. C. Jones, G. E. Robinson, G. Stevens, A. H. Moore, J. P. Noyes; Secretary-Treasurer, C. H. Parmelee; Assistant Secretary-Treasurer, W. H. Chaffee.

Temiscouata Ry.—Traffic receipts for Oct., $14,483.02, against $13,202.01 for Oct., 1905.

Temiskaming and Northern Ontario Ry.—Net earnings for eight months to Aug. 31, $132,900.

Toronto, Hamilton and Buffalo Ry.—Earnings for Oct., $67,835.58, against $65,964.09 for Oct., 1905.

Wabash Rd.—A special meeting of the stockholders has approved of a resolution making an issue of 4% 50 year refunding mortgage bonds amounting to $200,000,000, and an increase of the capital stock of the company by the amount of $16,500,000. The refunding bonds are to be sold for the purpose of retiring all existing bonds, notes and equipment obligations, and to provide funds for betterments, extensions and additional equipment.

The Intercolonial Railway's Position.

Hon. H. R. Emmerson, Minister of Railways and Canals, speaking at the Canadian Club, Ottawa, Nov. 3, dealt with the history and prospects of the Intercolonial Ry. He said one issue made by the Maritime Provinces in the confederation negotiations was for the construction of a railway reaching from the Lower to the Upper Provinces. Thus the I.C.R. became a part of the confederation bargain, not with the idea that it was to be a source of profit, but because it was necessary to bring about the union, and essential to bind the various parts of the country together in permanent bonds While the railway had not paid and had been a burden on the country in the dividend producing sense with which railways are regarded, he claimed it as one of the most beneficial features of confederation. Up to the present time the I.C.R. had cost $80,000,000; the canals had cost $100,000,000; subsidies to railways $170,000,000, and subsidies to steamships $12,000,000. These expenditures, he claimed, had been justified by results, but none more so than that on the I.C.R. Though the I.C.R. had shown deficits in the books, it had produced dividends which were in the pockets of the people. Its greatest earning power had been in the manner in which it had bound together the maritime provinces and middle

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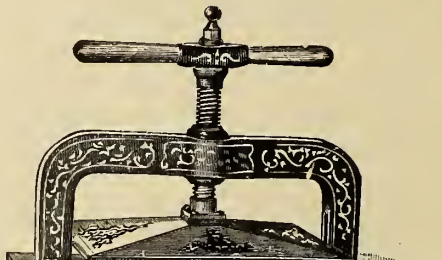

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Canada. Public opinion now demanded that the line should pay its way. That was a natural and just demand, and he felt he had been reasonably successful in meeting it. There had been a surplus in 1905-06 and there would be another in 1906-07. He thought he might with safety say that the day of deficits was past. The future of the road was bright; it was now a first-class road, its present standard would not only be maintained, but improved. While the I.C.R. should be self-supporting, it should not be regarded as a dividend producer. They might as well expect dividends upon the expenditure on canals, railway subsidies and steamship subsidies, as upon the I.C.R. The railway was the best asset Canada had; it had bound Canada together, and had diverted Canadian trade from the New England States.

The G.T.R. Provident Fund.

The question of the liability of the G.T.R. for injuries to its employes, while actually engaged upon the company's service, has been before the courts for many years, and may now be regarded as being finally settled. The Superannuation and Provident Fund, which has been in existence for many years, is maintained by contributions from the company, and compulsory contributions from the employes, who have to sign a declaration freeing the company from liability for damages for injury or death. Actions were brought by employes, or the representatives of employes, to recover damages for injury or death by accident in the course of work, and the cases were fought in the courts of Ontario and Quebec and Supreme Court with varying results. The case finally reached the Privy Council in London, Eng., but before the question was argued there, the Dominion Parliament passed an act in 1904, providing that no agreement with employes shall relieve a railway company from liability for personal injuries to such employes. The G.T.R. appealed against this act, and the decision of the Privy Council was announced Nov. 5. Lord Dunedin, in delivering judgment, said the true question in the case did not seem to turn upon the question as to whether this law deals with the civil right, but whether the law was truly conciliatory to railway legislation. In the factum of the appellants, it is, inter-alia, set forth that the law in question might prove very injurious to the proper maintenance and operation of a railway; that it would tend to negligence on the part of employes, and that other results injurious to the public service and the safety of the travelling public would necessarily result from such a far-reaching statute. This argument, in their Lordship's opinion, is really conclusive against the appellants. Of the merits of the policy, their Lordships cannot be judges, but if the appellants' factum properly describes its scope, then it is indeed plain that it is properly conciliatory to thorough railway legislation. The appeal was dismissed with no order as to costs.

The G.T.R. is applying at the current session of the Dominion Parliament for an act amending the acts relating to the G.T. Ry. of Canada Superannuation and Provident Fund, and authorizing the G.T. Ry. Co. of Canada to establish a pension or superannuation fund for the benefit of its employes, and, if deemed advisable, the employes of companies controlled or operated by it, and to contribute thereto such sums as the directors may from time to time determine; with such powers and provisions respecting the establishment and management of the fund as may be deemed necessary.

Alberta Ry. and Irrigation Company.

The following report for the year ended June 30 was presented at the annual meeting in London, Eng., Nov. 7:

REVENUE

Balance from July 1, 1905		$ 21,008.52
Revenue from colliery, railways, canals, profit on land sales, etc		245,277.32
		$266,285.84
Interest on prior lien debenture stock	$49,534.34	
London expenses (exclusive of directors' fees	7,026.15	
Interim payment of 2% on the 5% debenture stock, made July 1, 1906	65,000.00	
Final payment of 3% on the 5% debenture stock made October 20, 1906	97,500.00	
		219,060.49
Surplus, subject to a deduction for directors' fees		$47,225.35

The coal sales were 199,824 tons, compared with 170,682 for the previous nine months. The sales would have been larger were it not that the collieries were practically shut down for the last four months of the fiscal year on account of the strike. The gross earnings of the railway were $182,796.51, compared with $127,714.35 for the previous nine months. The prospects are particularly good of the earnings from the railway being increased so soon as sufficient time has elapsed to enable the company to derive the benefit expected from the new settlers.

The land sales aggregated 171,305 acres and realized $939,538.20, the average price being about $5.48 an acre. These sales comprised 84,640 acres covered by the trust deed for debenture stockholders and 86,665 acres, formerly the property of the Canadian North-West Irrigation Co., and free from the trust. Of the lands sold, 11,484 acres were irrigable and 159,821 non-irrigable, the average price for irrigable lands being $11.04 an acre and for non-irrigable lands $5.08. In addition to the company's general holdings it has also an interest with the C.P.R. in 100,000 acres, and of these there were sold during the year 57,920 acres, the company's proportion of profit being equal to $2.10 an acre, receivable as the instalments of purchase money are paid. Early in the year the company's terms for payment were changed from one-tenth to one-sixth cash and the balance in five equal annual instalments; interest at 6% per annum being charged on the unpaid purchase money.

The estimated net profit resulting from all the above sales is $343,960.03, and the proper proportion of the actual cash received for lands free from the trust, after deducting the land expenses for the year, amounting to $4,587.79, is included in the present revenue account, the balance being placed to reserve to be dealt with as the outstanding instalments are received. The total amount in reserve in connection with sales of company's lands is now $319,828.11, and in connection with sales of C.P.R. lands $113,720.00, a total of $433,548.11. The company owned on June 30, 762,186 acres of land remaining unsold, about 155,000 acres being irrigable and 607,186 above canal level and non-irrigable. The latter are termed "winter wheat lands." In addition the company owns many town lots in Lethbridge and Raymond. The selling price for irrigable lands has now been increased to $20 an acre and upwards according to location, and for winter wheat lands the price is $5 an acre and upwards. The prospects for making further land sales in the immediate future are very promising, but the directors are not at present desirous of making large sales of irrigable lands, as it is felt that these are increasing in value. The receipts from water rentals were $16,062.87, and these receipts will increase from year to year as the area under cultivation is extended.

The development of the district served by the company's railway is progressing very satisfactorily. A large crop of wheat, oats, barley and sugar beet has been harvested in good condition and the prospects for future development are good. The C.P.R. has decided to make Lethbridge a divisional point, which will not only be of great benefit to the city but will also benefit this company. All of the company's narrow gauge rails and rolling stock have been sold at prices considerably over the inventory value. The work of enlarging the St. Mary's Canal has proceeded very rapidly during the past season, and it is expected will be fully completed during 1907. On March 8 last, the miners employed by the company went out on strike, but the directors are glad to learn from the Managing Director's report that the back of the strike has been broken and that the collieries are now producing over 200 tons a day, an output which will shortly be largely increased as new men become better accustomed to the work.

The demands of the striking miners included recognition of the American Mining Union, increased wages and other requirements, which would have increased the cost of the company's coal to a prohibitive figure. In accordance with the Railway Act of Canada the directors retire from office, and offer themselves for re-election, viz.: E. T. Galt, Col. K. R. B. Wodehouse, A. M. Nanton, W. Burdett-Coutts, M.P., E. S. Clouston, J. H. Dodgson, J. Galt, W. M. Ramsay and E. Waterhouse.

ASSETS.

Colliery, railways, lands, canals, etc., cost at June 30, 1905		$7,495,056.62	
Expenditure on canal extension, change of gauge, etc., during year		523,294.87	
		$8,018,351.49	
Less cost of land and amount realized from narrow gauge equipment sold during year		806,213.48	
			$7,212,138.01
Stores on hand			82,327.37
Amounts owing the company—			
For land	$1,787,781.84		
Less mortgages sold with the company's guarantee	$139,601.59		
C. P. R. Land Agency Acct	167,968.00		
		307,569.59	
		$1,480,212.25	
Sundry debtors		159,478.10	
			1,639,690.35
Cash in banks and offices			274,765.76
			$9,208,921.49

LIABILITIES

Four per cent. prior lien debenture stock			$1,231,692.00
Five per cent. debenture stock			3,250,000.00
Common stock			3,250,000.00
Dominion Government			514,583.33
Sundry creditors			384,372.70
Land suspense accounts			433,548.11
REVENUE ACCOUNT—			
Balance June 30, 1905	$77,056.02		
Final payment of 1½% on 5% debenture stock for 9 months, made Oct. 20, 1905	48,750.00		
	$28,306.02		
Directors' fees voted Nov., 1905	7,297.50		
		21,008.52	
Balance of revenue account for the year		188,716.83	
		$209,725.35	
Interim payment of 2% on the 5% debenture stock, declared May 20, 1906, and made July 1, 1906		65,000.00	
			144,725.35
			$9,208,921.49

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REVENUE ACCOUNT.

Net revenue from colliery, railways, canals, land sales, etc.	$244,475.31
Interest, exchange, transfer fees, etc.	802.01
	$245,277.32
London expenses (exclusive of directors' fees)	$7,026.15
Interest on prior lien debenture stock	49,534.34
Balance carried to balance sheet	188,716.83
	$245,277.32

Railway Sanitation.

The National Council of Women, meeting at Hamilton, Ont., Oct. 15, discussed railway sanitation, the matter being brought forward by a paper read by Mrs. Hoodless of that city. In the course of the paper it was claimed that persons who travelled in sleeping cars or on through express trains were not aware of the condition of junction stations, branch lines and lunch counters. Reference was made to the efforts put forward by the G.T.R., the C.P.R., and the Dominion Commercial Travellers' Association to bring about improvements on the lines, and to enforce a more stringent observance of rules by the public. A strong reference was made to the lack of consideration on the part of many women in the use of train toilet rooms, pointing out that they often used them an unreasonably long time and left them in a disgraceful condition. It was suggested that notices be put up requiring women to use the toilet rooms only a limited time, and that they leave them in the condition they expect to find them. Reference was also made to the lack of cleanliness of many of the railway cars and smaller stations, and it was suggested that the request be made to have these cars and stations cleaned thoroughly each day. In closing her paper Mrs. Hoodless stated that from both C.P.R. and G.T.R. replies had been received promising hearty co-operation in this matter.

It was resolved that the committee on railway sanitation formulate rules for sanitation of railway cars and stations in accordance with the suggestions, and that copies of these rules be forwarded to each local council for approval, and that the committee should be empowered to enquire into the sanitary condition of the railways before forwarding reports to the railway commission.

Relic of Victoria Bridge, Montreal.—Lying in the river, close to St. Lambert, there is an interesting relic of the old Victoria Bridge of the Grand Trunk Railway. It is the foundation stone of the first pier, bearing an inscription relating to the building of the bridge. This stone was laid with much ceremony on July 20, 1854. When the construction of this old tubular bridge was commenced —in July, 1853—it was the greatest piece of engineering work of its kind in the world, and it remained so for many years. The cost was $6,500,000. The original design for the bridge was made by T. C. Keefer; Robert Stephenson was the engineer, and A. M. Ross superintended the carrying out of the work. The contractors were Peto, Brassey, Betts & Co. The bridge was completed in 1859, the company giving the contractors $300,000 extra to complete the structure a year before the contract time.—Montreal Witness.

The Toronto str. Seguin and the tow barge Sir Isaac Lotham Bell collided in St. Clair River, Nov. 14, the latter sinking in two minutes. The Seguin reached Sarnia, Ont., and subsequently sank at her dock.

The str. Strathmore, formerly known as the Gordon Campbell, was driven on the rocks on the north-west point of Michipicoten Island, Nov. 13, and subsequently sank. The vessel will be a total loss. Her insurance value was $17,500.

Canadian Ticket Agents' Association.

The annual trip of the Association, which was held in November, extending to Mobile, Ala., and New Orleans, La., was the most largely attended of any and passed off very successfully, the party numbering considerably over 200. Detroit, Mich., was the rendezvous, and the party left there on Nov. 7, at 6.30 p.m., in a special train of eight sleeping cars and a baggage car, on the Wabash Rd. Secretary de la Hooke had made the most careful advance reservations of berths and his arrangements were most satisfactory. St. Louis, Mo., should have been reached Nov. 8, at 7.30 a.m., but the train was about three hours late. Breakfast was served in the Union Station restaurant, and at noon the train proceeded by the Mobile and Ohio Rd. Several hours' delay occurred at Cairo, Ill., owing to the derailment of some freight cars on the bridge over the Ohio River, and Mobile, Ala., was not reached until 4.30 p.m., instead of 8.42 a.m., on Nov. 9. A reception committee met the party at the station and they were soon quartered at the Cawthon and Bienville hotels. In the evening a considerable number attended the Lyric Theatre.

On Nov. 10, the annual meeting was held in the German Relief Hall, President W. Bunton in the chair. Mayor Lyons welcomed the visitors on behalf of the city, and M. Hamburger, Jr., President of the Commercial Club, and E. L. Russell, Vice-President of the Mobile and Ohio Rd., also spoke. A pleasing feature was the display of British flags in the hall alongside the U.S. ones.

President Bunton read a very interesting address. He referred feelingly to the deaths of W. H. Harper, of Chatham, Ont.; A. W. Edgecombe, of Fredericton, N.B.; and C. A. Pipon, Passenger Agent for Ontario for the International Mercantile Marine Co. He repeated the suggestion made in his inaugural circular, viz., that ladies should attend the annual dinners, etc. Reference was made to the great development in railway construction, and to the fact that at least three, and possibly four transcontinental lines will be in operation within a few years. This expansion should result in a large increase in the membership of the Association. Ticket agents should become thoroughly conversant with the new territory and the conditions it involves. An agent, to become a good agent, must travel over and become personally acquainted with his territory. He must not be a mere book agent, but must know whereof he speaks. He must be a philosopher, guide and friend to the traveller who wishes to be provided with means of transportation. He must know all about the route he recommends. He must provide that no traveller to whom he sells a ticket can come back at him on account of misleading or defective information. The choice of Mobile as a meeting place had been a happy one; the hearty southern hospitality received had been as warm as the climate. For 1907 he suggested a visit to the Canadian Northwest, the scene of the most tremendous railway expansion of the century. In taking such a trip they would make themselves personally familiar with the actual travel situation, for they must expect the tremendous trend of travel to take that direction from now on. They went as far west as Winnipeg a few years ago, but since that time, a new world has sprung up. He suggested that they go further west and north, say from Winnipeg, via Canadian Northern Ry., to Edmonton, C.P.R. to Calgary, on to Banff, back to Winnipeg, returning home via St. Paul and Chicago. In that trip they could learn something about their own country, the region to which they would be called upon to send travellers next year, and for years to come, in hundreds and thousands, and an agent who could speak from personal knowledge of the region and route sought by the traveller, could gain more confidence and do more business than the man who spoke from mere hearsay or guide-book knowledge. Mr. Bunton continued: "In our business, 'honesty is the best policy.' Always treat a customer or a prospective customer in good faith. If a competing line can give better connection and better service, tell him so, and send him across the street to the other fellow. You may lose a present customer and possibly a little commission, but you will win, what is better than monetary gain, a good name, a reputation for square dealing, and sometime, when your own line can serve the customer better or even as well, you will have a friend who will buy from you and always be ready to speak a good word for you and your line. This naturally leads up to another quality which an ideal ticket agent should possess—politeness—something which costs nothing, and yet nothing else pays bigger dividends on the investment. No matter how trying on your patience, or how unreasonable or stupid your customer may appear to you, don't lose your temper or display annoyance; make due allowance for his seeming lack of knowledge by cheerfully humoring him and skilfully steering him into your way of thinking, even though you fail to land him. By treating him politely he will naturally go away with a better opinion of himself, and of the agent who has been gentlemanly, and really true to his calling and the company he represents. In a general sense the interests of all ticket agents are the same, no matter what line they serve. I have endeavored to point out to you what a good agent should be according to my way of thinking and according to my own experience. What I have said may not meet the views of all of you, but I shall be well satisfied if any remarks I have been called upon to make will provoke discussion and bring out new ideas, for it stands to reason, that no matter how wise he may be, no one man knows it all; therefore, I say, talk it over, and as I have said before, exchange ideas, or in railroad parlance, 'pool your experience,' for should we not all work together for the common good." In concluding, Mr. Bunton thanked the members for the confidence given him, and pointed out that as the Association would come of age next year, every effort should be put forth to make the next outing the bumper one of the series.

Secretary de la Hooke, in his annual report, said it was the most promising he had submitted in the whole history of the Association. The admission of 47 members during the year was a record: 16 members had seceded, owing to various causes, leaving a net gain of 31 and a total membership of 210, the first time the membership had exceeded 200, and he urged its increase to 300. He said: "If these annual leakages could be stopped, we should soon have a very strong and influential association. It is hoped that better judgment will prevail and that agents once members will continue such. The payment of an annual subscription fee of $2 cannot be a valid excuse for defaulting, when it is remembered that for this sum, in addition to other privileges, it includes the receiving monthly of one of the best railway and marine journals published on this side of the Atlantic; accurate in its information and comprehensive in its character." The receipts of the Association for the year were $477, and balance from 1905, $204.53, a total of $681.33. Deducting expenses, $459.55, leaves $221.98 to be carried forward. The trip to Portland in 1905 resulted in a loss of $32.88, owing to the small attendance, an unusual occurrence, as the outing fund usually more than covers the outlay and leaves a balance to be carried to the general funds. Feeling reference was made to the deaths of W. H. Harper, A. W. Edgecombe and C. A. Pipon, all of which occurred under

(*Continued on page 741.*)

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Locked Wire Fence Co., London, Ont.	768
Locomotive and Machine Co. of Montreal	706
Mail Job Printing Co., Toronto	771
The Males Company, Cincinnati, O.	748
McCaskill, Dougall & Co., Montreal	Cover 1
McCord & Co., Chicago, Ill.	744
John McDougall & Co., Montreal	764
M. McKenzie & Co., Montreal	774
Magann Air Brake Co, Toronto	722
G. B. Meadows' Wire, etc., Co., Toronto	750
Mechanical Mfg. Co., Chicago, Ill.	774
John S. Metcalf Co., Chicago, Ill.	772
Mica Boiler Covering Co., Montreal	764
Midland Towing and Wrecking Co., Midland Ont.	772
Miller Bros. & Toms, Montreal	774
The Robert Mitchell Co., Montreal	770
Montreal Steel Works, Montreal	740
T. A. Morrison & Co., Montreal	774
John Morrow Machine Screw Co., Ingersoll	774
W. H. C. Mussen & Co., Montreal	Cover 1
National Steel & Wire Co., New York, N.Y.	746
New Brunswick Wire Fence Co., Ltd., Moncton, N.B.	770
New St. Charles Hotel, New Orleans, La.	746
New York Central Railroad	762
A. O. Norton, Coaticook, Que.	716
J. J. O'Connor, Port Arthur, Ont.	774
Ontario Wind Engine and Pump Co., Toronto	771
Orford Copper Co., New York	738
Owen Sound Wire Fence Co., Ont.	758
Page Wire Fence Co., Walkerville	760
Peck Rolling Mills, Ltd., Montreal	746
Pere Marquette Rd.	772
H. W. Petrie, Toronto	Cover 1 and pg. 730
Eugene F. Phillips Electrical Works, Montreal	772
The Hiram L. Piper Co., Montreal.	774
N. L. Piper Railway Supply Co., Toronto	754
Polson Iron Works, Toronto	756
Positive Lock Washer Co., Newark, N.J.	771
J. W. Pyke & Co., Montreal	744
Rhodes, Curry & Co., Amherst, N.S.	752
Robb Engineering Co., Amherst N.S.	726
A. J. C. Robertson, Montreal	762
St. Thomas Brass Co., St. Thomas, Ont.	730
Safety Car Heating & Lighting Co., New York	722
Sheriffs Mfg. Co., Milwaukee, Wis.	764
Simplex Railway Appliance Co., Montreal	Cover 4
The Jas. Smart Manufacturing Co., Brockville, Ont.	734
Soule Raw Ride Lined Dust Guard Co., Boston, Mass.	736
Standard Inspection Bureau, Toronto	758
Standard Steel Works, Philadelphia, Pa.	768
Steel Concrete Co., Limited, Montreal	740
Submarine Signal Co., Boston, Mass.	750
Toronto Bolt and Forging Co., Toronto	754
Toronto Pressed Steel Co., Toronto	752
J. W. Townsend, Halifax, N.S.	754
Traymore Hotel, Atlantic City, N.J.	720
Trussed Concrete Steel Co., Detroit, Mich.	710
United Empire Bank of Canada	772
Vulcan Iron Works, Toledo, Ohio	734
Willson Gas Buoy Co., Ottawa	756
J. E. Wilson, Ltd., St. John, N.B.	774
Wire & Cable Co., Montreal	748
R. Woodman Mfg. and Supply Co., Boston, Mass.	714

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Canadian Ticket Agents' Association.

(Continued from page 737.)

sudden and distressing circumstances. "With these sad experiences before us, should it not behoove us to more seriously consider, perhaps, than we do, the uncertainty of life, and that truly 'in the midst of life we are in death.'"

The election of officers resulted as follows: President, W. McIlroy, C.P.R., Peterboro, Ont.; 1st Vice-President, C. R. Coleman, C.P.R., Truro, N.S.; 2nd Vice-President, R. J. Craig, C.P.R., Cobourg, Ont.; 3rd Vice-President, J. P. Hanley, G.T.R., Kingston, Ont.; Secretary-Treasurer, E. de la Hooke, London, Ont.; Executive Committee, W. Jackson, C.P.R., Clinton, Ont.; W. Bunton, G.T.R., Peterboro, Ont.; J. F. Dolan, R. & O. N. Co., Montreal; C. E. Horning, G.T.R., Toronto, E. G. Piche, C.P.R., Joliette, Que.

Invitations from Denver, Col., and Milwaukee, Wis., for the meeting of 1907, were read and referred to the executive committee.

H. J. Pettypiece, C.P.R., Forest, Ont., presented a paper in which the history and development of the G.T.R., Intercolonial Ry., the C.P.R. and the Canadian Northern Ry., and the G.T. Pacific Ry., were fully dealt with.

After the meeting, the party enjoyed a complimentary electric car trip through Mobile and its suburbs, which was greatly enjoyed. On returning to the city a fish dinner was served in the German Relief Hall, which was followed by an informal dance and a late supper at the Cawthon.

Mobile was left on Nov. 11, the special train travelling over the Louisville and Nashville Ry. A stop was made at 3 p.m., at Pass Christian, for luncheon, which was tendered in the New Magnolia by the L. & N. R. Co., and New Orleans was reached in the evening, the party staying at the New St. Charles Hotel, a very large house, where the accommodation proved most satisfactory. On Nov. 12, the New Orleans local committee, under the leadership of a well-known Canadian, A. J. McDougall, D.P.A. Illinois Central Rd., at New Orleans, took the party for an extended electric car trip through the city. In the afternoon the U.S. Mint and a number of other public buildings were visited and in the evening the party divided up among the theatres and a concert. On Nov. 13, the French quarter of the city was visited, and a steamboat ride was taken on the river, affording a splendid view of the levees, and a visit was paid to Col. Stanton's sugar plantation and factory.

New Orleans was left on Nov. 13, at 9 p.m., by the Queen and Crescent route. Birmingham, Ala., was reached on Nov. 14, about 11.30 a.m., and luncheon was served there. Soon after leaving Birmingham snow began to fall, and when Chattanooga, Tenn., was reached it was quite deep. A trip was made to Lookout Inn, on the top of Lookout Mountain, and Chattanooga was left at 10 p.m., Cincinnati being reached on the morning of Nov. 15. A day was spent there very pleasantly, and a start was again made at 9.30 p.m., by the Cincinnati, Hamilton and Dayton Rd., Detroit, Mich., the dispersing point being reached by the Pere Marquette, on Nov. 16, at 7.30 a.m.

The following presentations were made on behalf of the members during the trip: Dr. Shaw, Honorary Physician, cut glass set; J. A. Richardson, C.P.A. Wabash Rd., cut-glass marmalade jar; M. H. Bohreer, D.P.A. and C. Rudolph, G.A. Mobile & Ohio Rd., each a set of decanters; J. K. Ridgely, D.P.A. Louisville & Nashville Rd., clock; Mr. Anderson, Louisville & Nashville Rd., scarf pin; A. J. McDougall, D.P.A. Illinois Central Rd., alligator bag and scarf pin; G. E. Clarke, N.P.A. Queen & Crescent Route, scarf pin; W. W. Dunnavant, T.P.A. Queen & Crescent Route, cuff links; Mr. Collins, Cincinnati, Hamilton & Dayton Ry., cuff links; J. W. Kearns, T.P.A. Pere Marquette Rd., cuff links.

Grand Trunk and Central Vermont Rates.

The U. S. Interstate Commerce Commission has given the following decision in the case of the A. J. Phillips Co. against the Grand Trunk Western, the Detroit, Grand Haven and Milwaukee, and the Central Vermont Ry. companies, the decision having been delivered by Commissioner Clements.

The complainant company is a corporation engaged at Fenton, Mich., in the manufacture, sale, and shipment of screen doors, windows, and other wire specialties. It is alleged that from Winooski, Vt., 3 miles east of Burlington, the defendants charge and exact on wire screen doors and windows the following rates to the western points named:

To Detroit, Mich., 20c. (carload, 18,000 lbs.)
To Chicago, Ill., 25c. (carload, 16,000 lbs.)
To Milwaukee, Wis., 25c. (carload, 16,000 lbs.)
To East St. Louis, Ill., 31c. (carload, 16,000 lbs.)

That from Fenton, 51 miles west of Detroit, Mich., they charge to eastern points named below the following rates:

To Winooski, Vt., 36c. (carload, 14,000 lbs.)
To Boston, Mass., 36c. (carload, 14,000 lbs.)
To New York, N.Y., 32c. (carload, 14,000 lbs.)
To Philadelphia, Pa., 30c. (carload, 14,000 lbs.)

That the difference of 16c. per 100 lbs. between the eastbound and westbound rates from Winooski to Fenton and from Fenton to Winooski amounts to 40c. on a dozen screen doors—the average profit thereon—and similar though less discrimination exists in respect to intermediate destinations. While the eastbound rates are charged to be unreasonable and unjust, it is manifest that this charge is based upon a comparison with the westbound rates. The real gravamen of the complaint is the discrimination in the rates east and west.

The joint answer of the G.T.R. and the Central Vermont Ry. companies, admitting the rates as stated, avers that the rates from Fenton, Owosso, and other screen factories in Central Freight Association territory to western points are on a commodity basis practically the same as fifth-class, and that the same basis has been extended eastward to Winooski, Vt.; and denies violation of law or injury to the complainant in this adjustment. It also alleges that Winooski brings lumber from the south at a greater expense, and a part of the wire from Detroit, paying freight both ways; and further justifies higher eastbound rates on the ground of the empty car movement westward.

There are similar factories to that of complainant at Owosso, Adrian, Detroit, and Hillsdale, Mich.; Perla, Ark.; Memphis, Tenn.; Minneapolis, Minn.; Burlington and Winooski, Vt., and Philadelphia, Pa., manufacturing what is known as stock screens: one at Cortland, N.Y., not doing a large business, and one at Portland, Me., principally confined to the manufacture of wire screens to fill special orders and not furnishing stock goods for the trade. The eastern factories do not furnish a great proportion of the western trade, though reaching Detroit, Chicago, and other distributing centres, even sometimes as far west as San Francisco.

The eastbound rates are commodity rates, and are practically the same as fourth-class, while the westbound are practically fifth-class. The class rates from Boston to Chicago are as follows by the standard trunk lines:

1	2	3	4	5	6
75	65	50	35	30	25

and from Chicago to Boston:

82	71	55	39	33	27

The differential lines have westbound rates as follows:

70	61	47	33	28	23½

By the defendants' line from Chicago to Winooski the class rates are:

82	71	55	39	33	27

But its westbound rates between the same points are:

65	57	44	31	26	22

Screen doors average about 250 lbs. to the dozen and at 36c. per 100 lbs. the rate per dozen is about 90c., while at a 20c. rate the average is about 50c. per doz., or a difference of 40c. per dozen in the amount of freight, a sum which complainant alleges is above the measure of the manufacturer's profits for the last year or more. The lake and rail rate to Detroit is 21c. per 100 lbs. from Winooski. The distance by this route is 161 miles by rail to Ogdensburg, thence to Detroit 493 miles, or a total of 654 miles, while the rail distance by the G.T.R. to Detroit is 658. By this rail and lake route the time of shipments is one day to Ogdensburg and three days thence to Detroit. The rail route is not expected to make much better time. To a considerable extent the bulky products of the west require for their transportation equipment in excess of that necessary to the carriage of west-bound freight, so that there is a greater movement of empty cars under light power westward, which increases the expense of transportation to the carriers. Estimates of the hauling of empty cars have been from time to time made and show a tendency toward equalizing the movement as compared with former years, and this tendency is likely to be progressive with the movement of population and manufacturers westward, but it even yet, as estimated by a witness of defendants, approaches one-third the total car movement on that line westward. This naturally leads carriers to offer lower rates in that direction in order to secure traffic to occupy otherwise empty equipment and to help bear the expense of operation. This condition was recognized by the complainant, who at the hearing conceded that as a matter of railway economy the principle was correct until it interfered with the business of shippers, by making a discrimination between competitors similarly located. For its westbound business Fenton enjoys some advantages as to classification and rates, as does Winooski, in that practically the fifth-class rates on screen doors and windows apply. The complainant company five or six years ago had a trade in eastern cities of from 30 to 50 cars annually, and now only 12 to 15 cars, as stated by its manager, though one of defendants' witnesses alleged that complainants' shipments for the last season, after the establishment of the 20c. rate to Detroit, were slightly greater than the year before over defendants' line. The class rates from Winooski to Boston are as follows:

50	42	33	24	18½	15½

while the rate on wire screen doors and windows is 20c.—but little higher than the fifth-class rate and considerably below the fourth-class rate. To New York city the class rates are from Winooski:

51	45	35	24	20	16

but from Winooski on wire screen doors and windows are 21c. to Pier 34, East River, 19c. to 33rd, 60th, 130th, and Melrose Jct., and 15c. to Pier new 29, East River; and these rates are near or lower than the fifth-class rate. There is, however, a summer basis for rates from Winooski to New York on class goods considerably lower than the rates above given, presumably with the open water navigation, and extending in 1905 from April 10 to December 23. Between these dates class rates were:

39	34	27	19	17	15

while the rates on screen doors and windows were from 15 to 21c. to various New York terminals, or ranging from sixth to above fourth-class rates according to point of delivery.

An effort was made to show that complainant had some advantage in the matter of procuring supplies—securing his lumber from nearby points and the wire screen at cheaper freight rates than his competitors in the east, and in illustration it was shown that from Cortland, N.Y., though more distant from Fenton, the rates were 4½c., or 90c. per ton

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less than to Winooski on wire screen, though it was not shown that either manufacturer secured any material supplies from that point. The lumber—pine from the south, beech for window screens from points in Michigan—for Fenton was, the defence charged, secured at rates which gave that point an advantage over Winooski, and the complainant was as confident that on at least part of the lumber supplies from the south and from Canada its competitors in the east fared better than it. It is impossible with the testimony offered to accurately determine the total cost of manufacture at each point—the price as well as freights on the raw material. Into such a problem must of necessity enter the other factors of rents, interest, labor, fuel, efficiency, etc., and even after all these are determined something of profits must depend upon administration, volume, expense of sales, etc. It is easily seen that to strike a balance under such conditions is a matter of difficulty, and when found offers no ground to the carriers nor to this commission to equalize the ultimate conditions of manufacture. These conditions are not stable, and rates established on such considerations would be subject to revision with each season. Indeed, it is doubtful if two establishments at the same point engaged in the manufacture of the same or competing articles conduct their business on the same basis of cost and profits, and attention is called to this only to illustrate the impossibility of adjusting rates on such considerations. In support of the formal charge of unreasonableness of the rates in question no testimony was offered except comparison of the rates hereinbefore stated. The carload minimum on wire screen doors and windows is 18,000 lbs. from Winooski to Detroit, and at the time of filing of the complaint was 14,000 lbs. on that from Fenton eastbound, but on July 1, 1906, it was increased to 16,000 lbs. This smaller carload minimum is usually counted a substantial advantage as enabling the shipper to reach smaller markets in the distribution of some commodities, but on stock goods such as screens, to large distributing centres, it is apparently of less importance. The complainant in this case claims that an increase of the smaller carload minimum would cut little figure if the larger cars were always furnished that would permit loading up to such minimum.

Generally rates are lower for the transportation of westbound traffic than for eastbound, although there are exceptions to this general rule. This feature in the adjustment of rates is probably due more to the preponderance of empty car movement westward than to any other cause, though other varying causes have doubtless entered into the matter in greater or less degree in respect to different commodities. Some disparity, therefore, between the rates on eastbound and westbound traffic seems to be justified by the conditions resulting from the empty car movement in one direction. Within reason, therefore, such disparity in rates, though a discrimination, is not unreasonable or unlawful. It has been seen that there is a difference of 17c. between the first-class eastbound and westbound rates between Winooski and Chicago by the defendants' line, and 8c. as to articles of the fourth-class, and 3c. as to those of the fifth-class. No satisfactory reason appears why there should be a greater disparity between the rates on the traffic in question eastbound and westbound than that which prevails on articles of substantially the same character in the classes; yet it is not clear, on the other hand, but that a somewhat greater disparity in these rates than would be indicated by the classes might exist without unjust discrimination against the complainant. But it is clear that some readjustment of these differences is required to promote the ends of justice and the requirements of the law. This record, however, scarcely furnishes an adequate basis for the determination of the exact changes that should be made. The case will, therefore, be retained with the expectation that the carriers will make a substantial readjustment of these rates in accordance with the views herein expressed. In the event of failure on the part of defendant carriers to substantially conform to the recommendations herein, the complainant will have leave to proceed further. No order will now be made.

The Lake Superior Corporation.

Following is the report for the year ended June 30, presented at the recent annual meeting:

During the year the important plants of the operating companies have been actively employed, and in this direction the expectations of the directors have been realized. It is hoped that the current year will see other of the plants in operation and that the results to the Corporation will be more profitable.

The blast furnaces and steel rail plant, the principal industry, demands the largest share of attention and absorbs in its operation the greater proportion of the financial resources, while its further needs are inadequately met. It is most gratifying that it shows great development and improvement. The estimated production of 150,000 tons of steel rails for the year has been exceeded by about 10,000 tons. The "record" output of steel rails for a day—1,004 tons—and 17,873 tons during Aug., 1906, shows the possibility of the plant, and proves the advisability of further capital expenditure on the steel works. The directors would like to provide, at the earliest possible date, for another blast furnace having a daily output of at least 400 tons. This would nearly double the present production of pig iron, and thereby furnish material adequate for the most advantageous operation of the rail mill. The present blast furnaces operated during the past year have made 130,902 tons of pig iron, which is considered a very satisfactory showing.

The construction of two 30-ton open hearth furnaces has been authorized and their completion is expected early in Dec. This extension will make way for the profitable use of a large amount of scrap which has accumulated, and furnish additional material needed in the operation of the rail mill. This new open hearth plant has been planned with a view to extension.

Less ore has been taken out of the Helen mine than during the preceding year. Several causes have combined to produce this result, among which may be named labor troubles, and a fire which destroyed the hoisting apparatus and machine shop, all of which have since been replaced. The development work continues; considerable bodies of pyrites have been found, for which a ready market is available at profitable figures.

The two railways and the fleet of steamers have again been profitably operated and, as in the previous year, mostly with companies' freight. The two traction companies together have shown increased business and better results. An extension of the route on the U.S. side is under consideration. It is believed that the usual history of street railways in cities—an increase of business from year to year—will be realized in these operations.

The Tagoma Water & Light Company has made its usual good record.

Propositions from outside parties have been considered in regard to the nickel properties, but as yet nothing has been presented which seemed worthy of acceptance.

Power from the Michigan power house has been furnished to the Carbide Co. during the year. Unavoidable circumstances have delayed the construction of the works necessary to make the power house secure under the development of the maximum horse-power, to which reference was made in the previous report. Plans have been prepared, and it is expected that the necessary work will be under way early next year.

The income amounts to $1,138,744.11. The interest charges, with general expenses, and the writing off of a further part of re-organization expenses amounts to $581,863.97, leaving a net income for the year of $556,880.14. This is a very gratifying showing for the second full year's operation, and exceeds that of the preceding year by $522,077.66. The efficiency of the several plants has been well maintained by a liberal charge for repairs and general maintenance, while expenditures on betterments have resulted in more economic operations. For the two years ended June 30, 1906, $527,883.09 have been expended for betterments and extensions to property and plants.

The directors have set aside $150,000 out of the profits for the year for payment of 5% interest on the income bonds, payable Oct. 1, 1906. On June 30, 1906, the total of the inventories of materials and supplies, and outstanding accounts receivable held by the subsidiary companies was $4,129,671.96. It is a pleasure to again state the directors' hearty appreciation of the faithful service rendered by the management and the employes of the company.

INCOME FOR YEAR ENDED JUNE 30, 1906.

Interests on investments, securities of subsidiary companies from net earnings	$1,102,044 03	
Net interest from banks and other sources	36,700 08	
		$1,138,744 11
Coupons paid 1st mortgage bonds outstanding	$452,200 00	
Interest accrued 1st mortgage bonds, June 30, 1906	37,683 33	
General expenses, taxes and organization costs	91,980 64	
Balance credit profit and loss	556,880 14	
		$1,138,744.11

PROFIT AND LOSS ACCOUNT.

Balance forward from June 30, 1905	$ 34,802 48
Surplus for year to June 30, 1906	556,880.14
	$ 591,682.62

BALANCE SHEET, JUNE 30, 1906.

ASSETS.

Investments and securities of subsidiary companies	$51,184,072 06
Cash on hand	24,385.99
Cash reserve for unpaid coupons	30,875.00
Accounts receivable, secured by bonds	125,001.70
Treasury bonds	956,879.42
Furniture and fixtures	475.82
Accounts receivable	9,293.46
Due from subsidiary companies	2,064,279.05
	$54,395,262.50

In addition to the bonds in the treasury, there is held for the account of the Algoma Central and Hudson Bay Ry. Co. to be used in the extension of its line, cash, $57,209.01; first mortgage bonds, $345,000.00.

LIABILITIES.

Capital stock	$40,000,000 00
First mortgage bonds	10,000,000 00
Income bonds	3,000,000 00
Bills and accounts payable	688,235 63
Coupons unpaid	30,875.00
Accrued interest on bonds and loans	42,998 24
Due to subsidiary companies	7,287.96
Suspense account	34,183.05
Profit and loss account (carried forward)	591,682.62
	$54,395,262.50

PRODUCTION.

	1905	1906
Helen Mine ore (shipments)	170,880 tons.	167,665 tons
Pig iron	66,235 "	130,902 "
Steel rails	98,822 "	159,740 "
Ground wood pulp	27,817 "	24,344 "
Lumber sales	$233,147	$124,240

MATERIALS USED.

Coal	67,025 tons.	69,284 tons.
Coke	80,458 "	189,189 "
Charcoal	14,966 "	1,897 "
Pig iron (manufact'r'd)	59,680 "	144,652 "
Pig iron (purchased)	49,856 "	35,865 "

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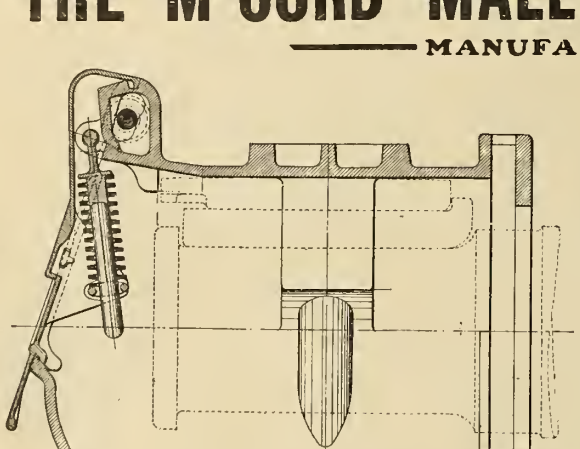

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STOCK, JUNE 30, 1906.

Helen mine ore	66,726 tons.	38,063 tons.
Pig iron	6,618 "	7,450 "
Rails	11,262 "	8,768 "
Ground wood	2,347 "	487 "
Scrap	4,871 "	10,810 "
Lumber	1,963,121 feet.	4,270,550 feet.

Subsidiary companies owned by the Lake Superior Corporation: Algoma Central & Hudson Bay Railway Co.; Manitoulin & North Shore Railway Co.; Algoma Commercial Co., Ltd.; Algoma Iron Works; British-America Express Co.; Algoma Steel Co., Ltd.; Lake Superior Power Co.; International Transit Co.; Trans. St. Mary's Traction Co.; Tagoma Water & Light Co.; Sault Ste. Marie Pulp & Paper Co.

TRANSPORTATION APPOINTMENTS.

The following information has come to hand since page 731 of this issue went to press:

Canadian Northern Ry.—G. Stephen, heretofore chief clerk freight branch, General Traffic Manager's office, has been appointed Assistant General Freight Agent. Office, Winnipeg, Man.

C. W. Cooper, heretofore chief clerk passenger branch, General Traffic Manager's office, has been appointed Assistant General Passenger Agent. Office, Winnipeg, Man.

Canadian Pacific Ry.—F. B. Zercher has been appointed foreman passenger car shops, Angus, Montreal, vice C. F. Rydberg, promoted to be Superintendent.

A. C. Harshaw has been appointed Trainmaster at Midhurst, Ont., with jurisdiction from Bolton to Craighurst, on the Toronto-Sudbury branch.

Quebec, Montreal and Southern Ry.—W. C. C. Mehan, formerly Trainmaster Ottawa Division G.T.R., has been appointed Superintendent Quebec, Montreal and Southern Ry., with office at Montreal.

Following is a list of the official staff as recently reorganized: General Manager, C. B. Hibbard; Chief Engineer, F. D. Anthony; Superintendent, W. C. C. Mehan; Purchasing Agent, R. A. Trudeau; Travelling Freight and Passenger Agent, N. J. Ferguson; Car Accountant, C. S. Papps. All of the foregoing officials are located at Montreal. Master Mechanic, D. L. Jones, Sorel, Que.

Unconfirmed press reports state that D. E. Brown, General Agent C.P.R. for China, Japan, etc., will retire from that position shortly, owing to the climate not suiting his health.

J. McKeon, for about 25 years in the service of the Niagara Navigation Co., and latterly chief officer of the Chippewa, died at his home in Toronto, Nov. 17, as the result of a paralytic seizure.

J. H. Muir, Secretary-Treasurer G.T.R. lines west of Detroit and St. Clair Rivers, died at Detroit, Mich., Nov. 27, aged 71. He was born at Kilmarnock, Ayrshire, Scotland, Nov. 12, 1835, and entered railway service in 1850, since which he has been consecutively to 1855 clerk mechanical, parcels (express) audit and Treasurer's departments, Glasgow and Southwestern Ry., Scotland; 1855 to 1858, clerk, bookkeeper and cashier freight office Great Western Ry. of Canada, Hamilton, Ont.; 1858 to 1866, chief clerk audit department, cashier and auditor Detroit, Grand Haven and Milwaukee Ry.; 1866 to his death, Secretary and Treasurer Detroit, Grand Haven and Milwaukee Ry., and Secretary-Treasurer or Treasurer of the other G.T.R. subsidiary lines west of Detroit and St. Clair Rivers. He was a brother of W. J. Muir, who was Superintendent of the old Great Western Ry., and brother-in-law of Capt. J. B. Fairgrieve, of Hamilton, Ont. He was buried at Hamilton.

White Pass and Yukon Route.

The report of the directors, submitted at the annual meeting held in London, Eng., Nov. 12, included the accounts for the year ended June 30. These accounts cover the results of the operations of the local companies (all of whose capital is owned by this company) for their financial year, which ended Dec. 31, 1905. The profit and loss account, after providing for debenture stock and debenture interest and all charges, shows a net profit for the year of £88,140 0s. 1d. Adding to this amount £11,544 5s. 3d. carried forward from the preceding year, there is shown to be a balance at the credit of profit and loss in the balance sheet of £99,684 5s. 4d. Out of this, £16,169 0s. 11d. has been spent in the purchase of the full sinking fund instalment of £16,586 of stock due this year, and an interim dividend of 4s. a share, which absorbed £27,500, was paid July 14. The directors recommend that a final dividend of 6s. per share, absorbing £41,250, be declared, payable Jan. 15, 1907, making 5% for the year, leaving to be carried forward £14,765 4s. 5d. During the year covered by the accounts a special resolution was passed by the holders of the 6% mortgage debentures (navigation bonds), under which the term of such debentures has been extended from Dec. 31, 1911, to Jan. 1, 1930, it being provided that the company shall not redeem such debentures before the new due date, except at a premium of 5%. The only cost to the company of effecting this advantageous extension was the payment of a commission of 5% to the commercial managers for underwriting and for carrying the business through, including all expenses and legal charges connected therewith. Of this commission one-fourth has been charged against the present year's profits, the balance being chargeable by equal instalments over the next three years.

BALANCE SHEET, JUNE 30.

Shares, mortgages and debentures, at cost, of the local railway and navigation companies		£2,374,011	10 10
The local companies—			
Balance due from them		48,068	10 9
Cash at bankers and in hand		29,150	6 8
Sinking fund investments (at cost)— £73,904 WhitePass and Yukon Ry. Co. 5% consolidated first mortgage debenture stock	£67,036 0 8		
Cash in hands of trustees for investment	1,755 13 1		
		68,791	13 9
Commission paid for extension of 6% mortgage debentures (navigation bonds)	12,777 15 0		
Of which one-fourth has been charged against this year's profits	3,194 8 9		
		9,583	6 3
White Pass and Yukon Ry. Co., Limited, consolidated first mortgage debenture stock bought for sinking fund, 1906		16,169	0 11
		£2,545,774	9 2
Share capital—			
Authorized 170,000 shares of £10 each	£1,700,000		
Issued 137,500 shares of £10 each fully paid		£1,375,000	0 0
5% consolidated first mortgage debenture stock—			
Authorized	£750,000		
Issued		746,702	0 0
6% mortgage debentures (navigation bonds)—			
Authorized and issued		255,555	0 0
Sundry creditors		41	10 1
Sinking Fund—			
As per last balance sheet	£49,320 13 4		
Amount set aside out of profits for year ended June 30, 1905, in accordance with terms of agreement, dated Apr. 22, 1902	16,002 6 2		
Interest on sinking fund investments to June 30, 1906	3,468 14 3		
		68,791	13 9
Carried forward		68,791	13 9
Profit and loss account		99,684	5 4
Balance of profit per balance sheet at June 30, 1905	£96,296 11 5		
Less amount carried to sinking fund (see above)	16,002 6 2		
	80,294 5 3		
Less dividends paid July 15, 1905, and Jan. 15, 1906	68,750 0 0		
	11,544 5 3		
Add profit for year to June 30, 1906, as per acc't above	88,140 0 1		
	£99,684 5 4		
		£2,545,774	9 2

PROFIT AND LOSS ACCOUNT.

Interest on securities of local companies paid and accrued to date	£52,944	9 0
Dividends on shares of local companies	98,478	19 2
Interest on bank account, etc.	71	11 8
Interest on investment in consolidated first mortgage debenture stock of the company	393	18 4
Transfer fees, etc.	132	5 0
	£152,021	3 2
Interest on 5% consolidated first mortgage debenture stock	£37,335	2 0
Interest on 6% mortgage debentures (navigation bonds)	15,333	6 0
Directors' and trustees' fees	2 160	0 0
Management and London charges	3,762	16 1
Legal expenses and stamps	69	12 6
Audit fee to June 30, 1905	78	15 0
Commission for extension of 6% mortgage debentures (navigation bonds) £12,777 15 0		
Of which there is charged against this year's profits, one-fourth	3,194	8 9
Income tax	1,497	3 5
Loss in exchange	449	19 4
Profit carried to balance sheet	88,140	0 1
	£152,021	3 2

S. H. Graves, President of local companies, in his report said, in part, as follows: On the rail division we carried 14,157 passengers and 34,119 tons of revenue freight. The average haul was 74.36 miles per passenger and 107.98 miles per ton of freight, and the average load per car was 11.58 tons. The chief improvements on the railway in 1905 were the replacing of three old wooden bridges by three new steel ones, 190, 128 and 206 ft. long respectively, and of one old wooden bridge by a concrete wall; the laying of 1,080 ft. of new sidings north of the Skagway wharf siding; the extension of the track to the White Horse shipyards; the building of 1,150 ft. of permanent snow fence; the enlargement of the White Horse coal bunkers; the changing of the line at sundry places to take out curves; the taking out of the Y at Fraser and replacing it by a loop line; and repiling and extensive repairs to the White Horse wharf. The White Horse station building was destroyed by fire May 23, 1905, and rebuilt for substantially the amount of the insurance. Besides repairing our own rolling stock, we built at the Skagway shops during 1905, 26 freight cars on orders from other lines. Preliminary surveys were made in the autumn of 1905 for lines from Log Cabin and from Caribou to the Windy Arm district. The roadbed, rolling stock, shop and other equipment, wharves and everything else connected with the railway, have been kept up in first-class condition and repair. In doing this work, additional gravel ballast to the extent of 55,398 cubic yards was worked into the main line, and 18,600 new sleepers and 23,666 steel tie plates were laid in the main line. Notwithstanding the outlay on this work, the operating expenses of the rail division for 1905 show a decrease of $25,337.44.

The company's fleet in 1905 carried 7,671 passengers and 29,309 tons of revenue freight. We operated 12 steamers and seven barges on the river and lakes, and held seven steamers in reserve, and used one barge, Hootalinqua, as coal depot. The first boat left Hootalin-

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qua for Dawson, May 13; the first through boat left White Horse for Dawson June 1, and the first boat for Atlin left Caribou on May 29. The last through boat from Dawson reached White Horse Oct. 23, and the last boat from Atlin reached Caribou on Nov. 1. The barge Pelly was the only addition to the fleet during 1905. As our experience in the use of barges increased, we have been increasing their size till we have reached the maximum with this barge which carries 300 tons, and worked so satisfactorily during the season that we are building two more of the same size. The other important additions to the river division property in 1905 were the instalment of a pneumatic tool plant and the rebuilding of the south ways at the White Horse shipyards; the stiffening of the Selkirk with fore and aft bulkheads; and the setting of the stern wheel of the Bonanza King further back from her stern transom so as to allow more clearance for the water in backing. The season of 1905 on the whole was favorable on the river, and for the first time in our history all freight had reached its destination, and all our fleet were safe in their winter quarters at the close of navigation. Notwithstanding the greatly increased tonnage carried, the operating expenses were less by $22,840.55 than in 1904. No special incidents marked the season of 1905 on the river. Navigation nominally opened rather earlier than usual and closed rather later, but the water was so low, both at the opening and close, that the period of effective navigation was about normal. The barge Sifton was destroyed by being jammed between several large lower river steamers when the ice broke up in the spring of 1905, and it is doubtful whether we can recover her value, which was not great, as her hull was nearly worn out before she was converted from a steamer into a barge. She had not proved a good barge, being a poor carrier and hard to tow. The most interesting feature of the season was the successful use of coal instead of wood on all our river steamers except the White Horse, Selkirk and Dawson. The coal is mined at Tantalus, on the Yukon River, rather less than half-way from White Horse to Dawson, where there are several thick seams of good quality. Unfortunately the owners of the mines were short of miners and unable to keep our fleet supplied with coal in sufficient quantities, and not only was there much delay to boats waiting at the mines for coal, but what coal they got was badly mined and full of impurities. Not being able to obtain sufficient coal for the round voyage of over 900 miles, the boats had to burn wood in furnaces fitted for coal for part of each voyage, and this was not an economical way of using wood fuel. Notwithstanding these disadvantages there was a considerable saving from the use of coal, both in cost and in time occupied in taking fuel on board. The coal mines have now been leased by the owners to a responsible company, who have employed a capable mine superintendent and miners from the Dunsmuir mines on Vancouver Island, and it is hoped that during the coming season we shall have an abundant supply of good, clean coal always ready for our boats, and that a market may also be found for it in Dawson. The repairs and renewals required for keeping the fleet in first-class condition were duly made.

The mail, passenger, parcel and freight winter stage line service was carried on as usual between White Horse and Dawson by four-horsed sleighs and four-horsed coaches, which made 185 trips during 1905 (equivalent to 61,050 miles), carrying 36 tons of mail, 875 passengers, 5½ tons of parcel freight, including gold dust, and 134.8 tons of ordinary freight. We receive a fixed lump sum from the Canadian Government for the carriage of the mails, which only pays a small portion of the operating expenses, the remainder and any profit we may make has to be made up from revenue derived from the carriage of passengers, parcels and freight. It will be noticed that while the Government mail contract necessitated our making 27 more trips and carrying 6 tons more mail than the previous winter for the same money, on the other hand fewer passengers and parcels and freight were carried. If it were not for the mail contract we need not maintain so large an equipment, or send out sleighs without paying loads. Last season, in spite of these drawbacks, we managed to make a moderate profit on the winter service, though less than in previous years, but it is obvious that should the paying winter traffic continue to decline, the mail contract might become onerous, in which case we should not seek to renew it.

The year 1905 was marked by greater progress in the development of the mineral resources of the Yukon Territory and Alaska than any previous year since the discovery of the Klondike gold fields. In Alaska, the output and population of the Tanana goldfields almost equalled that of the Klondike, and the numerous smaller mining camps along the river all showed activity, while many new ones sprang into existence. These camps contributed satisfactorily to our traffic, notwithstanding that they are so much more easily reached than Dawson is from the mouth of the river. On the Canadian side of the boundary the change from hand to machine work for the recovery of the gold has made steady progress, and particular attention has been paid to dredging where the ground is suitable. We took in the material for a number of large dredges in 1905, and some of them were in such successful operation before the close of the season as to give a great stimulus to this method of gold recovery. The railway connecting Dawson with the chief mining creeks was commenced in 1905, and it is hoped may be completed and opened to traffic in 1906. The other Canadian placer gold fields have all shown increased activity, especially Atlin, which district is now almost entirely on a machine basis with a largely increased output. By far the most important and interesting feature in the development work of 1905 was in the Windy Arm District, between Lake Bennett and Windy Arm, a peninsula about 18 miles in length and 10 to 12 in width. Silver and gold ore of great extent and running high in values have been discovered at many places in this peninsula, and a large amount of work has been done on a number of these properties, demonstrating large ore bodies. An aerial tramway has been installed at one mine to carry ore down to the lake, and a number of others are contemplated. It seems probable that should equally encouraging results be obtained in 1906, a large smelter will be built at some point on the lake, and we shall have to take active measures to put ourselves in a position to furnish adequate and satisfactory service to these mines. With this in view, surveys as above mentioned have already been made for alternative lines from Log Cabin, and from Caribou, to the Windy Arm Mines.

On the rail division the company has 13 locomotives, one official car, 10 passenger coaches, three baggage and express cars, 241 freight cars of various kinds, and six miscellaneous cars. The fleet comprises 19 steamers and eight barges; and the equipment of the winter mail service department included, at the date of the report, 137 horses, 18 passenger sleighs and coaches, 20 freight sleighs and wagons; five light service sleighs and wagons, a break car and light bobs.

C. C. Macrae, Chairman, presided at the annual meeting, and in moving the adoption of the report, explained the accounts at considerable length. The resolution was seconded by Hon. S. Carr Glynn and adopted. A resolution declaring a final dividend of 3%, making 5% for the year ended June 30, payable Jan. 15, 1907, was passed. C. C. Macrae and E. F. North were re-elected directors, and Woodthorpe, Bevan & Co. were re-elected auditors.

S. H. Graves, President of the local companies, spoke at some length upon the position and prospects of the companies, concluding by observing that they appeared to have crossed the threshold of a new era of activity in both placer and quartz mining throughout the entire country served by the company's railways and steamers.

The officers and directors for the current year are: Chairman, C. C. Macrae; Vice-Chairman, Hon. S. Carr Glynn; other Directors: Jas. Dugdale, E. Hanson, E. F. North, Commercial Managers, Close Brothers & Co.; Secretary, W. H. P. Stevens; President of the local companies, S. H. Graves; General Manager of the local companies, A. L. Berdoe.

H. L. Jordan, Division Engineer of Construction, C.P.R. lines east of Montreal, died at St. John, N.B., Nov. 8.

The name of the barge Berks, official number 122,113, registered at Toronto, has been changed by order-in-council to W. S. Calvert.

The Montreal Transportation Co.'s barge Quebec, coal laden, went ashore near Charlotte, N.Y., Nov. 12, but was got off without serious injury.

Mrs. Nanton, widow of the late Augustus Nanton, barrister, Toronto, and mother of A. M. Nanton, Managing Director of the Alberta Ry. and Coal Co., Winnipeg, died at Ottawa, Ont., Nov. 29, aged 74.

W. H. C. Mussen and others have been incorporated as Mussens Limited, with a capital of $500,000 and head office in Montreal, to acquire the business carried on by W. H. C. Mussen & Co., as dealers in railway, mining, municipal and contractors' supplies, etc., and with other powers.

MacDonell & O'Brien, contractors G. T. Pacific Ry., Eastern section, have ordered from the Dominion Dump Car Co., Montreal, 30 Hart convertible cars, 34 ft. long, 9 ft. wide, outside measurement, 40 tons capacity, similar in design to those ordered recently by the Canadian Northern Ry., also a special ballast spreader car.

The St. Joseph Transportation Co. is the title for which an act of incorporation will be sought at the current session of the Dominion Parliament. The object of the company is to construct a waterway, or a system of canals, so as to create a navigable waterway from Lake Huron in Huron or Lambton counties, to Lake Erie; the canals or waterway to have a depth of 18 ft.; and in connection with the same to construct docks, wharves, elevators, etc., and to carry on a general navigation business. J. U. Vincent, Ottawa, is solicitor for the applicants.

THE Manitoba and North-Western Railway Company will apply to the Parliament of Canada at its present session for an Act to authorize it to construct a branch line of its railway from a point on the main line between Theodore and Insinger in a westerly and northwesterly direction to a junction with the Quill Lakes Branch at a point in Township thirty-two, range eighteen or nineteen west of second meridian, a distance of about eighty miles.

H. C. OSWALD,
Secretary.

Montreal, 21st November, 1906.

THE Canadian Pacific Railway Company will apply to the Parliament of Canada at its present session, for an Act to authorize the construction of a branch line from Earl Grey or Bulyea on its Pheasant Hills Branch, Province of Saskatchewan, or from some point between those places, southwesterly to a point in Township 20 or 21, Range 21 West 2nd Meridian.

CHARLES DRINKWATER,
Secretary.

Montreal, 17th November, 1906.

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Orders by the Railway Commissioners.

The following orders have been issued by the Board of Railway Commissioners, in addition to those given on page 705.

1835. Nov. 10.—Authorizing the C.P.R. to construct certain bridges on its Fort William section.

1865. Dec. 8, 1905.—Compelling the Canada Southern Ry. and M.C.Rd. to construct drainage to carry waters from J. A. Smith's lands, Township of Yarmouth, Ont.

1866. Oct. 15, 1906.—Extending time for completion of interlocking plant at crossing by the Napierville Jct. Ry. of G.T.R. tracks near Lacolle Jct., Que.

1867. Oct. 15.—Approving deviation of branch line of the Vancouver, Westminster and Yukon Ry. from False Creek to Burrard Inlet, B.C.

1868. Oct. 10.—Approving revised location of Canadian Northern Ontario Ry. through part of Alfred Township, County Prescott, Ont., between mileage 14.8 and 18, west of Hawkesbury.

1869. June 29.—Approving detail plans of retaining wall of highway near Milverton, (Guelph and Goderich Ry.), between cons. 4 and 5, Mornington, Perth County, Ont.

1870. Oct. 16.—Authorizing the C.P.R. to open for the carriage of traffic its second track from Murillo to Kakabeka; Dexter to Linko; Gull River to Ignace, and Ignace to Raleigh, Ont.

1871. Oct. 19.—Authorizing John Barr, of Shelburne, Ont., to erect telephone wires over C.P.R. tracks at Main St. crossing, Shelburne.

1872. Oct. 20.—Authorizing the General Manager of the Klondike Mines Ry. and the General Freight and Passenger Agent, or either of them, to prepare and issue tariffs of tolls to be charged.

1873. June 29.—Authorizing the James Bay Ry. to place its tracks across the C.P.R. Toronto-Sudbury branch tracks, on lot 12, con. 2, tp. of Cleland, Ont.

1874. Oct. 20.—Authorizing the C.P.R. to construct a spur in Perth, Ont., to H. K. Wampole & Co.'s premises.

1875. Oct. 22.—Authorizing the Guelph and Goderich Ry. Co. to open its line from Elmira to Milverton, mileage 16 to 34.5, for the carriage of traffic.

1876. Oct. 22.—Authorizing the C.P.R. to open for carriage of traffic its railway from Bolton to Craighurst, Ont., 52 miles.

1877. Oct. 23.—Authorizing the G.T.R. to construct a branch line in Port Elgin, Ont., to Stevens, Hepner & Co.'s premises.

1878. Oct. 23.—Approving of amended location of Vancouver, Victoria and Eastern Ry. and Navigation Co.'s line between Fraser River and junction with Victoria Terminal Ry.

1879. Oct. 23.—Authorizing B.C. Southern Ry. to open for the carriage of traffic its Yahk Branch, from Yahk, B.C., to the International boundary, 8 miles.

1880. Oct. 23.—Authorizing the Brandon, Saskatchewan and Hudson Bay Ry. to open for traffic its railway from International boundary, southern Manitoba, to Webster, 3 miles north of Souris River.

1881. Oct. 23.—Authorizing the James Bay Ry. to operate its trains over G.T.R. tracks, Sutton Branch, at grade level on lot 21, con. 8, Tp. East Gwillimbury, Co. York, Ont.

1882. Oct. 27.—Authorizing the Michigan Central Rd. to construct a branch line along and across concession road between 6th and 7th cons., Tp. Crowland, Ont., from its main line westward to the Ontario Iron and Steel Co.'s premises.

1883. Oct. 27.—Authorizing the Canadian Niagara Power Co. to erect its wires over G.T.R. tracks through lot 1, 2nd con., Tp. Bertie, Ont.

1884. Oct. 27.—Authorizing the Canadian Niagara Power Co. to erect wires and transmit power for a period of 90 days across the P.M. Rd. and M.C.Rd. lands and tracks, on lot 8, 4th con., Tp. Bertie, Ont.

1885. Oct. 27.—Authorizing the Canadian Niagara Power Co. to erect wires over G.T.R. line where same passes through lot 8, 4th con., Tp. Bertie, Ont.

1886. Oct. 26.—Authorizing Georgian Bay and Seaboard Ry. Co. to revise location of its line from lot 2, con. 6, to lot 12, con. 7, Tp. of South Orillia, Ont.

1887. Oct. 26.—Authorizing the Corporation of Toronto to lay water pipes on G.T.R. right of way between Davenport Road and Poplar Plains Road, Toronto.

1888. Oct. 26.—Authorizing the C.P.R. to construct branch line in Stonewall, Man., from its Teulon Branch to Irwin & Son's premises.

1889. Oct. 26.—Authorizing the C.P.R. to construct a spur from its main line to the Guelph Ice Co.'s premises, Guelph, Ont.

1890. Oct. 26.—Authorizing the C.P.R. to construct a track connecting its branch to the B.C. Mine, about 140 ft. northerly from southern end of Emma Mine on said branch.

1891. Oct. 26.—Authorizing the C.P.R. to construct three spurs on Colonial Lumber Co.'s property, Pembroke, Ont.

1892. Oct. 26.—Authorizing the C.P.R. to construct a spur from the spur to Taylor-Forbes Co.'s premises into Taylor-Forbes Co.'s premises, Guelph, Ont.

1893. Oct. 26.—Authorizing the Innerkip Rural Telephone Assn., Ltd., to erect telephone wires across the C.P.R. tracks at Innerkip, Ont.

1894. Oct. 31.—Authorizing the Vancouver, Victoria and Eastern Ry. and Navigation Co. to open for traffic its line from Midway to International boundary, B.C., 28.9 miles.

1895. Oct. 27.—Authorizing G.T.R. to construct branch lines with spurs therefrom from its line in Bracebridge, Ont., to the Anglo-Canadian Leather Co. and the J. D. Shier Lumber Co.'s premises.

1896. Nov. 2, 1906.—Authorizing Brandon, Saskatchewan and Hudson Bay Ry. to use for construction purposes the crossing of the C.P.R. tracks near Carroll, Man.

1897. Nov. 2.—Authorizing Midland Ry. Co. of Manitoba to use for construction purposes the crossing of the C.P.R. tracks at Elm Creek, Man.

1898. Nov. 2.—Authorizing Midland Ry. Co. of Manitoba to use for construction purposes the crossing of C.P.R. tracks at Plum Coulee, Man.

1899. Nov. 6.—Authorizing Canadian Northern Ontario Ry. to open its railway from temporary junction with Toronto Belt Line Ry., near Don Station, mileage 3.5, to Parry Sound, Ont., mileage 148.5, from Toronto north, for carriage of traffic.

1900. Nov. 7.—Approving of location of Canadian Northern Ontario Ry. between Queen St. and north side of Front St., Toronto.

1901. Nov. 6.—Approving location and authorizing construction of revision of Quill Lakes Branch, C.P.R.

Railway Commissioners' Freight Orders.

1976. Nov. 12.—In the matter of the application of the Canadian Freight Association, under the Railway Act, 1903, Sec. 255, for approval of a proposed supplement, filed as supplement 8 to Canadian Freight Classification 12. The commodities which have been moved from a lower to a higher class were published in The Canada Gazette on Sept. 22 and 29, 1906. Upon the report of the Chief Traffic Officer of the Board, it is ordered that the changes and additions embodied in the said proposed supplement are hereby legalized and sanctioned until such time or times as the Board shall revise, alter, or amend the same.

ELECTRIC RAILWAYS.

Montreal Street Railway Report.

Following are extracts from the report for the year ended Sept. 30, presented at the annual meeting Nov. 7:

The net earnings were $1,249,766.91, compared with $1,056,908.12 last year. After providing for the percentage on earnings accrued to the city and interest on bonds and loans, four quarterly dividends amounting to $700,000 were declared.

The gross and net earnings show a gratifying increase. Gross earnings increased $393,012.77, equal to 14.52%. Operating expenses increased $200,153.98, or 12.13%. Net earnings increased $192,858.69, or 18.25%.

The directors, anticipating extensive renewals to tracks, etc., decided on a policy of setting aside a certain percentage of the gross earnings each month to the credit of contingent renewal account. This, together with a further amount set aside from the surplus of the year, viz.: $60,000, amounted to $179,055.79; in addition to this, there remained $49,878.64, left over from the money set aside for snow account last winter, which has been transferred to this account. These amounts added to the balance of $81,626.94 carried forward from the previous year, made a total credit to this account of $310,561.37, against which has been charged the amount expended during the year, of $302,744.43.

$25,000 has been placed to the credit of the fire insurance fund; the interest on the investments for the year for this fund was $13,300. The amount now at the credit of the fund is $341,245.48.

Owing to the heavy demand for power requirements, due to the largely increased service the company is furnishing at the rush hours, large additions are being made to the power plants, feeders and return wires, and the company is installing storage batteries at the different sub-stations. In addition to this, the company is receiving a further 1,000 horse-power from the Montreal Light, Heat and Power Co. under the terms of the previous contract.

The company has secured a franchise for the construction and operation of its system in the town of Outremont.

Owing to the growth of the city, several new extensions to the tracks of the company have been constructed during the year and the rolling stock and equipment have been increased to keep up with the requirements of the traffic.

An agreement has been entered into with the parties owning the stock and bonds of the Montreal Terminal Railway Co. to purchase their interests.

In order to provide funds for the floating debt and for additions to the plant and property and extensions of the system, it will be necessary to issue further securities, and the directors have seriously considered this matter, and are of opinion that in view of the large expenditures necessary at the present time for renewals of track and equipment, that either bonds should be issued or stock at such a premium that the interest charges will not be too great a burden on the net revenue. For this purpose a special meeting of shareholders has been called to authorize the directors to take action.

The company has paid the City of Montreal the usual property and business taxes and tax on earnings, $191,696.59; account snow cleaning, $15,031.13; a total of $206,727.72.

The Montreal Park & Island Railway Company has shown satisfactory results

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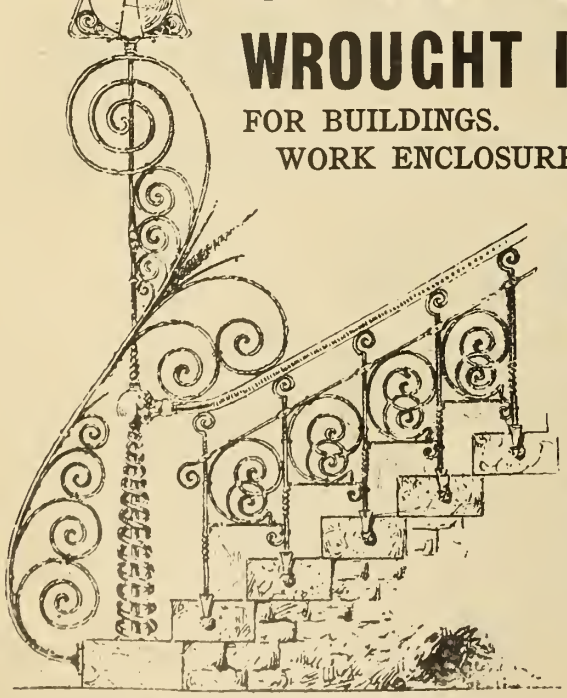

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this company during the past session for an extension of time to go on with its work; also for powers financial and otherwise, which were granted.

The Suburban Tramway & Power Company, which is controlled by this company, has completed the construction of its system through the municipalities of Longue Pointe and Beaurivage de la Longue Pointe, and an agreement has been entered into with that company for the operation of the same.

ASSETS.

Cost of road and equipment:		
Construction, etc.	$4,255,514.34	
Equipment, etc.	4,137,032.71	
Real estate and build'gs	1,973,810.14	
Stock and bonds of other companies	1,572,399.42	
		$11,938,756.61
CURRENT ASSETS.		
Stores	$347,311.58	
Accounts receivable	70,606.65	
Park and Island Ry. advances	215,663.77	
Cash in bank and in hand	40,201.99	
		673,783.99
Fire insurance fund investment		266,000.00
		$12,878,540.60

LIABILITIES.

Capital stock	$7,000,000.00	
Bonds, 5% due Mar. 1908	292,000.00	
4½% due Aug. 1922	681,333.33	
4½% due Nov. 1922	1,500,000.00	
Mortgages	36,034.51	
		$ 9,509,367.84
CURRENT LIABILITIES.		
Bank of Montreal loan	$1,483,974.53	
Accts. and wages payable	396,354.15	
Accrued int. on bonds	34,567.75	
Accrued tax on earnings	187,235.32	
Employes' securities	15,371.10	
Unclaimed dividends	1,956.57	
Unredeemed tickets	37,874.16	
Suspense account	163,006.70	
Div. payable Nov. 2, 1906	175,000.00	
		$ 2,495,340.28
Fire insurance fund	341,245.48	
Contingent account	7,816.94	
Surplus	524,770.06	
		873,832.48
		$12,878,540.60

PROFIT AND LOSS ACCOUNT.

City percentage on earnings	$ 178,408.38
Interest on bonds and loans	163,599.68
Dividends—(payable quarterly)	700,000.00
Contingent account	179,055.79
Fire insurance fund	25,000.00
Surplus account	3,703.06
Net earnings from operation	$1,249,766.91

MONTREAL PARK AND ISLAND RAILWAY COMPANY BALANCE SHEET, YEAR ENDED AUG. 31, 1906

ASSETS.

Cost of road and equipment	$2,264,468.19
Office change fund	2,000.00
Accounts receivable	2,047.93
Profit and loss	793,077.31
Contingent account	9,217.53
	$3,070,810.96

LIABILITIES.

Capital stock—preferred	$ 315,000.00
Capital stock—common	720,900.00
Bonds	1,025,000.00
Mortgages	500.00
Unredeemed tickets	10,007.47
Suspense account	19,981.05
Montreal St. Ry. Co.'s loan	209,276.68
Accrued interest on bonds	607,314.48
Cumulative dividend on pref. stock	162,831.28
	$3,070,810.96

INCOME ACCOUNT.

	1906
Gross earnings	$ 218,604.88
Operating expenses	155,142.10
Net earnings	63,462.78
Contingent for renewals	50,000.00
Net income	$ 13,462.78
Fixed charges—bonds and loans	$ 102,588.43
Cumulative pref. shares	18,900.00
	121,488.43
Deficit	$ 108,025.65

Following are extracts from the report of the directors of the Montreal Park and Island Ry. Co.: During the year additional right of way was purchased from Snowdon's Jct. to the C.P. Ry. viaduct on the Cartierville line in order to permit the double-tracking of this section of the road, and ensure an efficient and satisfactory service to and from the Montreal Jockey Club race course to the city, as well as a more rapid service to and from Cartierville. The directors entered into an agreement with the Montreal Jockey Club to construct the necessary terminus on its property. The company proposes constructing extensions to its system to St. Vincent de Paul, St. Genevieve, and Dorval, providing the necessary right of way be obtained at a reasonable cost. The company's powerhouses at Rockfield and St. Laurent, which were requiring considerable expenditures for renewals and enlargement, were closed early in the year and an arrangement concluded with the Montreal St. Ry. Co. for the supply of current necessary for the company's business. The expectations in this respect have been more than fully realized. The saving made by this change during the year was $10,615.98. In view of the increase in traffic and the proposed extensions to be made to the system it will be found necessary during the year to provide additional equipments and rolling stock to meet the requirements.

A Three-Phase Electric Railway.

The Southwestern Traction Co.'s electric railway, which is at present being operated between London and the boundary of St. Thomas, Ont., is equipped with what is known as the three-phase alternating system. It is the only line in Canada to be so equipped, and even in Europe, where the system was invented, it has only been adopted upon a few lines. The current is generated at a pressure of 10,000 volts, and is transformed at different points along the line down to 1,000 volts. The central power house is at Chelsea Green, the machinery having been supplied from Great Britain, from whence the motors for the cars were also supplied. The capacity of the plant is about 1,000 h.p., which, it is anticipated, will be sufficient for the operation of the line as far as Port Stanley for some years. The company uses three cars for passengers only, which make stops at towns and villages only, the rate of speed between stopping places being 30 miles an hour; and three combination passenger, express and baggage cars for intermediate traffic, which average 22 miles an hour. Each car has a seating capacity for 48 persons, and an hourly service is maintained. Inside the city of St. Thomas the company will run its cars over the city electric railway, and in order to do so, its cars are also equipped with the necessary motors for the direct system.

The three-phase system was elaborated by Ganz, of Buda Pesth, Austria, and is also known as the Cascade system. In it an arrangement is introduced analogous to the series-parallel method used in direct current working. There are two motors, or a multiple of two, to each car or locomotive, just as there are two cylinders in a compound engine, and the two are in mechanical connection with each other. One of them, which may be called the primary, is wound for a higher tension than the other (the secondary), and the maximum speed of the latter is only half that of the former. The three-phase current, which has a frequency of 15, is conveyed by means of two overhead trolley wires, and the rails upon which the trains run. It enters the stator coils of the primary motor, and thereby sets up an induced current in the rotor of the motor which, of course, begins to revolve. The frequency of this induced current is proportional to the "slip" between the rotor and the revolving field of the stator, and will therefore gradually decrease as the speed of the motor increases up to the speed of synchronism. This induced current generated in the primary rotor, supposing that the train is being started from rest, is led to the stator of the secondary motor, and the rotor of this in turn has a current generated in its coils of a frequency proportional to its "slip." This second current is taken through a variable resistance in circuit with the second motor. Supposing now that the two motors, which are mechanically linked together, have attained half the full speed for which the machine is designed—that is, the full speed of which the secondary motor is capable—then the "slip" of the primary motor being 50%, the frequency of the current induced in its motor and passing through the stator of the secondary motor, must be about 7½, and the secondary motor will be running about synchronously with the current it is receiving. Thus, the energy from the main supply is all being taken by the primary stator, which hands on half to the secondary motor to be converted into motion, and itself transforms the other half into mechanical effort. At this stage of half-speed the secondary motor has done its share in accelerating the train and becomes useless, because as soon as it begins to run faster than the speed for which it is constructed it ceases to act as a motor and becomes a generator, exerting a retarding influence on the speed of revolution instead of helping it At this point, therefore, it is cut off from electrical connection with the primary motor, and allowed to run idle, the variable resistance that was joined up with its rotor being transferred to that of the primary. Acceleration now proceeds by the aid of the primary motor alone, the resistance being automatically altered from its maximum to zero as the motor increases its speed from half to full, and approximates to synchronous running. Under no circumstances is it possible to exceed the maximum designed speed, even when going down a hill, for as soon as the speed of a motor is forced beyond that for which it is intended it ceases to be a motor, and, becoming a generator, experiences a negative torque which checks its pace.

When it is desired to stop the train the same property is utilized; the secondary motor is put in series with the primary, and, as its motor is then being driven at double its normal speed, it also is subjected to a negative torque, which continues until the machine has been brought to half-speed. In this way the greater part of the kinetic energy of the moving train is absorbed by being reconverted into electrical energy, and the mechanical brakes are called upon to do comparatively little in effecting a stop. There is thus a saving in the wear of the tires and brake blocks, and also of the rails, since it is not possible to skid the wheels. The current of 3,000 volts being almost certainly fatal if taken through the body, very careful precautions are adopted to prevent accidents. Thus the driver does not actually touch any of the switches by which the train is controlled, but they are all operated by means of compressed air; the same agency is used to raise the trolley poles up to the trolley wires, and to work the variable resistance. This last is of a liquid form, but instead of the metal plates being lowered into the solution (which is of carbonate of soda) the liquid is forced up against the plates by the air pressure to the required height. Breakage of a trolley wire is also guarded against by an arrangement whereby its snapping, or even its undue sagging, owing to elongation, closes a short circuit, and by melting safety fuses instantly renders the line dead. This Cascade system has been adopted in substitution for steam power on the Lecco, Soudrio, and Chiavenna line in Italy, 66 miles long.

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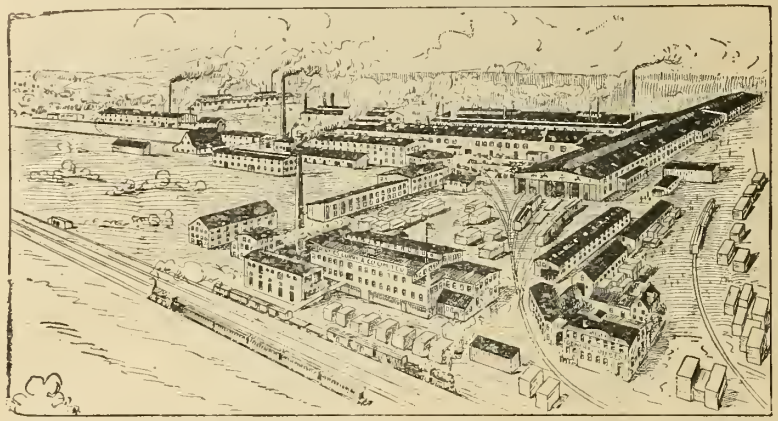

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Projects, Construction and Betterments.

Brantford and Hamilton Electric Ry.—A contract has been let to F. H. Dickenson, Hamilton, for laying the track on the entire line. Several hundred tons of rails have already been delivered at Hamilton, and tracklaying is expected to be started at an early date. (Nov., pg. 675.)

British Columbia Electric Ry.—A contract has been let for the erection of additional car barns at Vancouver. The several municipalities through which the projected line from New Westminster to Chilliwack will run have passed the by-law granting the necessary franchises. The question of the construction of the line will now be considered by the directors in London, Eng. (Nov., pg. 675.) See also Westminster and Chilliwack Ry., Nov., pg. 675.

Calgary, Alta.—An agitation is going on favoring the construction of an electric railway in the city. It is urged that the city council should undertake the work, but if it will not do so, to grant a franchise to a company which is prepared to start construction at an early date.

Edmonton, Alta.—The City Engineer has submitted an estimate for the construction of three miles of single track, and 4.5 miles of double track in the city. The construction and equipment of this mileage he puts at $100,700, and the cost of operation he estimates at $90 a day. The report is being considered by the council, which passed a resolution Oct. 25 declining to grant a franchise to a private company to construct a line. (Nov., pg. 675.)

The Halifax Electric Tramway Co. is building a car barn on Lower Water St., Halifax, N.S. The new building, 100 by 135 ft., is of brick with concrete floor, and folding steel doors, and is expected to be ready for occupancy by Dec. 31.

Hamilton Radial Ry.—A Hamilton city alderman stated Nov. 7 that it was the intention of the company to proceed with the extension of its line from Oakville to Toronto. (June, pg. 345.)

Hamilton Terminal Station.—A contract has been let by the Hamilton Cataract Power, Light and Traction Co., for the erection of a building on the south-east corner of King and Catharine streets, Hamilton, Ont., for a terminal station for electrical railways. The station proper will be 112 ft. on King St., by 72 ft. deep on Catharine St. The building will be placed 12 ft. east of Catharine St., and on this 12 ft. strip will be erected a covered shelter leading from King St. back to a large theatre which is to be built at the rear end of the lot at some future time. This shelter also serves as an exit for passengers from the trains. The office building will be four stories high, with a basement, and will be erected of Indiana limestone for the first two stories, while buff terra cotta fire clay brick will be used for the upper stories, finished off with terra cotta balusters. The building will be thoroughly fireproof, and will be built of reinforced concrete for columns, beams and floors. The ground floor will be laid out for station purposes, the ceiling being 20 ft. in height, and the floor covered with mosaic and the walls lined up 8 ft. high with Italian marble. The accommodation includes a main lobby in the centre, entered from the street through large double doors. To the right is a marble staircase to the upper floors and the elevator. The main lobby leads to the ticket wickets, behind which is the vault, etc. On the right is the ladies' waiting-room, and on the left the general waiting-room. In the rear of the general waiting-room is the conductors' room. The second floor will be occupied as offices by the Hamilton Cataract Power, Light and Traction Co., and the third and fourth floors are to be divided into offices. The company's stores department will be located in the basement, where also will be the large transformers. The building and the theatre, when erected, will be heated by steam from three 76 h.p. boilers located under the tracks. The shelter referred to will be covered with incandescent electric lights, about 1,000 in number, for illumination purposes, and there will also be an installation of electric lights along the front of the building for decorative purposes. There will be a clock on the top of the building. The Hamilton Radial Ry., the Hamilton and Dundas Electric Ry., the Brantford and Hamilton Ry., the Hamilton, Grimsby and Beamsville Electric Ry., and the Hamilton, Guelph and Waterloo Ry., will have their terminals in the building. The architect is C. Mills, Hamilton, and the contractors are the Canadian White Co., Montreal. The contract calls for the completion of the building ready for occupancy by Aug. 1, 1907. (Sept., pg. 549.)

Hamilton, Waterloo and Guelph Ry.—The plans of the route of this line were approved by the Minister of Railways Nov. 1. All the crossings are to be overhead or subways. The Hamilton City Council is not quite satisfied with the plans so far as they affect the city, and will appeal to the Board of Railway Commissioners. The route will pass through the Sheffield and Rockton districts, and will enter Galt by way of Moffat's Creek. South of Galt it is intended to connect with the Galt, Preston and Hespeler Ry. (Sept., pg. 549.)

Huron and Ontario Ry.—Survey parties have been working recently in the vicinity of Heathcote, Inglewood and Flesherton, Ont. R. S. D. Hartrick, Chief Engineer of the company, has charge of the work. (Aug., pg. 477.)

London Street Ry.—A copy of the report of the engineers employed by the Ontario Railway and Municipal Board to inspect the railway, has been sent to the company. The Manager states that the report makes no orders for repairs which the company has not already begun, or provided the material for making. Guard rails will be laid at the approaches to the Wellington st. bridge at once, and at the other bridges as speedily as possible. A great deal of the track has been raised and repaired, some of the overhead work has been done, and a lot of other work has been done. (Nov., pg. 675.)

Manitoba Radial Ry.—Application is being made at the current session of the Dominion Parliament for an act incorporating a company with this title to construct railways of standard or other gauge, to be operated by steam, electricity or other power, from, at, in or near Winnipeg westerly and northerly to Lake Manitoba, with power to construct branch lines, to operate steamboats on the lake and to conduct hotels, amusement parks, etc. A. Wagner, Winnipeg, is solicitor for the applicants.

Medicine Hat, Alta.—A proposition has been submitted to the city council by eastern capitalists for the construction of an electric railway in the city.

Montreal and Southern Counties Ry.—Nothing has yet been done in the way of construction, as the company's negotiations with the city of Montreal are still pending.

Montreal Street Ry.—The taking over of the lines of the Montreal Terminal Ry. by the M.S. Ry. has necessitated some rearrangement of the routes. New special track work at the more important of the street intersections is being laid. Concrete roadbeds have been laid, and the whole work is of the highest class. (Nov., pg. 675.)

Niagara, St. Catharines and Toronto Ry.—The grading on the extension from Thorold to Fonthill, Ont., has been completed and it is expected that the tracklaying, ballasting and wiring will be completed by the end of the year. It is proposed to extend this line to Welland in the spring. The work of improving the line in the vicinity of St. Catharines, strengthening the bridges, filling in trestles, and replacing the tracks with 80-lb. steel is being rapidly completed. (June, pg. 345.)

North Midland Ry.—A by-law for the loan of $40,000 to the company by the St. Mary's, Ont., town council, is to be submitted to a vote of the taxpayers. The company has acquired a site for a power house at St. Mary's, and will go ahead with the construction of the line as soon as the by-law is agreed to. (See Western Central Rd., Sept., pg. 549.)

Quebec and Saguenay Ry.—R. Forget, M.P., who is at the head of the proposal to construct this line, took a party of Quebec and Montreal men over a portion of the proposed route recently. The line will start from St. Joachim, the terminus of the Montmorency division of the Quebec Ry., Light and Power Co.'s line, and run along the foot of the cliff above high water mark. The only point at which the construction will be heavy will be where Cape Tourment runs out to the river, but the length of this rock cutting is not very great. All the rest of the way the construction will be comparatively light. There is plenty of rock all along the route for ballasting purposes. The survey is practically completed, and it is said that an early start will be made with construction. A contract is reported let to Cameron, Quebec, for the construction of the line. (Nov., pg. 675.)

South-Western Traction Co.—The work making a connection between the company's tracks and those of the St. Thomas City Council's line has been completed, and the cars are now being operated from London into St. Thomas. The contract with Port Stanley calls for the completion of the line from St. Thomas to that point Jan. 1, 1907. (Nov., pg. 675.)

Vancouver to Seattle.—Press reports from Vancouver and New Westminster, B.C., state that Great Northern Ry., U.S., engineers are surveying a route for an electric railway from Vancouver, through New Westminster, B.C., to Seattle, Wash. It is also reported that the power rights of Stave Lake have been purchased by G.N. Ry. interests.

Windsor and Tecumseh Electric Ry.—It has been announced that the charter for the construction of this electric railway has been acquired by the Detroit United Ry., which already owns the Windsor City Electric Ry., and the Sandwich, Windsor and Amherstburg Electric Ry. Construction work is being pushed and it is expected that the line will be completed by Dec. 31.

Winnipeg.—It is proposed to establish a new town opposite Headingly, Man., to be connected with Winnipeg by a bridge over the river, and an electric railway.

The Pennsylvania-Ontario Transportation Co., which is incorporated under the laws of the State of Ohio, for the purpose of carrying on a general navigation business, has been licensed to do business in Ontario, under the laws respecting the licensing of foreign corporations. The capital to be employed in Ontario is not to exceed $40,000, and W. M. Fincke, of Ingersoll, Ont., is the company's attorney.

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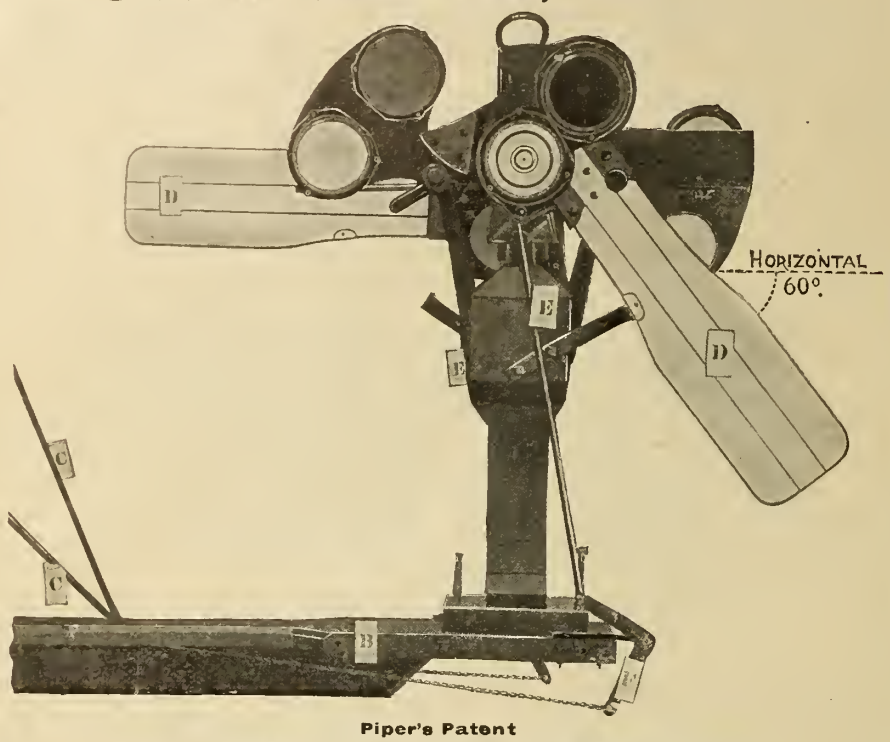

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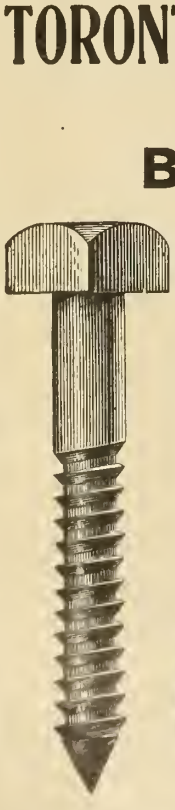

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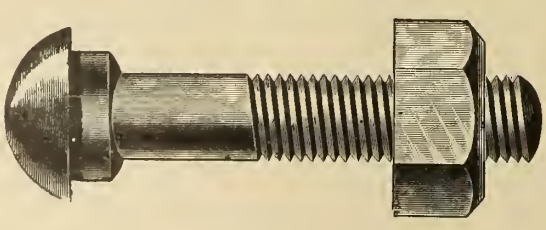

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Electric Ry. Finance, Meetings, Etc.

Grand Valley Ry.—The report that the Toronto, Hamilton and Buffalo Ry. has acquired the G.V. Ry., is denied by General Superintendent Fisher of the T.H. and B. R.

Halifax Electric Tramway Co.—Railway receipts for Oct., $16,096.58; total railway, electrical lighting and gas receipts $36,213.36, against $12,833.59 and $31,391.99 respectively for Oct., 1905.

Hamilton Street Ry.—Receipts for nine months ended Sept. 30, $203,979 against $176,997 for same period, 1905. The proportion of earnings paid to the city for the current year is $21,957.

Hamilton, Grimsby and Beamsville Electric Ry.—Local reports in Hamilton, Ont., state that the majority stock is about to be transferred to the Hamilton Cataract, Power, Light and Traction Co. This stock is held in trust by a legal firm in Hamilton, and was understood to have been originally acquired in the G.T.R. interests.

Montreal Park and Island Rd.—At the annual meeting of shareholders, held Nov. 20, the directors' report was presented, showing that during the year improvements were made that enabled the company to handle the increasing traffic between Montreal and Cartierville to much better advantage, and set out that in view of the increase of traffic certain additional lines should be constructed, provided the necessary right-of-way could be secured. It had also been found necessary to provide additional equipment and rolling stock. The financial statement is included in the annual report of the Montreal Street Ry. It showed an increase in net earnings of about $35,000, while there was an actual deficit upon the year's operations of $108,-025, owing to the heavy expenses of renewals. Following are the officers for the current year: President, Hon. L. J. Forget; Vice-President, K. W. Blackwell; Managing Director, W. G. Ross; Secretary, P. Dubee.

Montreal Street Ry.—The city council receives a percentage upon the company's receipts within the city limits. For the year ended Aug. 31 these receipts were $2,646,-554.31, and the city's percentage was $177,-586.52. The percentage is made up on the basis of 4% upon earnings up to $1,000,000; 6% upon the next $500,000; 8% upon the next $500,000; 10% upon the next $500,000, and 12% upon the balance.

Passenger earnings for Oct., $275,903.20; total earnings, $281,822.28, against $246,605 passenger and $249,788.52 total for Oct., 1905. Net earnings $124,132.81 against $108,107.45 for Oct., 1905. City percentage on earnings, $9,868.62; interest on bonds and loans, $16,850.17; contingent for renewals, $14,091.11; against $8,843.54 city percentage; $13,219.10 interest on bonds and loans; surplus, $83,522.91 against $87,044.81 for Oct., 1905.

St. Thomas, Ont., Street Ry.—Receipts for Oct., $1,298.93 against $1,212.03 for Oct., 1905. The commissioners operating the line have applied to the city council for a vote of $1,000 to enable them to meet current expenditures.

Southwestern Traction Co.—The St. Thomas, Ont., City Council has given the company until Dec. 15, to pay the rental due the city under the agreement. President Rumball informed the council that the company had had many difficulties to contend with in getting its line constructed, and had not been in a position to meet its obligation to the city.

Toronto Ry.—Car earnings for Oct., $264,-860.61, against $230,295.51 for Oct., 1905.

Electric Railway Notes.

R. O. Clark has been approved by the Ontario Railway and Municipal Board as examiner of motormen on the Brantford, Ont., Street Ry.

Complaints have been made to the Ontario Railway and Municipal Board of the condition of the Grand Valley Ry., and as to the fares charged. The Board is considering the question of whether it has jurisdiction over this line or not, as the company has Dominion as well as Provincial charters.

The B.C. Electric Ry. distributed among its employes, Oct. 27, the annual bonus, provided by appropriating one-third of the net earnings of the system after paying a 4% dividend to the shareholders. The amount received by each of the employes was $45, against $40 for 1904-05.

Two years ago Dr. Mader obtained a verdict of $7,000 against the Halifax Electric Tramway Co., for damages alleged to have been sustained while driving over snow thrown up from the company's tracks. After being appealed a new trial was ordered, and at this trial, Oct. 26, the jury found Dr. Mader was negligent in his driving, and declined to give any damages.

The Hamilton Electric Street Ry. is having considerable trouble of late. Not only has it had difficulties with its employes, which culminated in a strike, but the Ontario Railway and Municipal Board held an investigation into the condition of its tracks, cars, etc. Wyse and Middlemist, the engineers appointed to report on the condition of the line, reported that track repairs were not properly kept up; that the operation of the line caused unnecessary and disagreeable noise; that the appearance of the car bodies was bad, that the brakes were inadequate; and that a proper device for sanding the track should be provided.

Grain Elevator Notes.

The Western Elevator Co. is erecting an elevator at Asquith, Sask.

The Intercolonial Ry. elevator at St. John, N.B., started up business for the winter season of navigation Nov. 12.

The Saskatchewan and Western Elevator Co. has been registered at Regina, Sask., under the ordinance respecting foreign corporations.

The 120,000 bush. elevator and flour mills of the Dowling Mills Co., Edmonton, Alta., have been leased to A. B. Campbell and R. P. O. Hewell, Edmonton.

The elevator at Scarth Jct., Man., showed signs of collapsing recently, owing to the giving way of the foundations, and temporary repairs were made.

We are officially advised that the report that the C.P.R. elevators at Fort William, Ont., were about to be leased to an operating company is a "newspaper yarn."

A new 800,000 bush. elevator is reported to be practically completed at Depot Harbor, Ont., the terminus of the Ottawa Division of the G.T.R. (the old Canada Atlantic Ry.) on Georgian Bay.

In connection with the development of electrical power at the Kakabeka Falls of the Kaministikwia River, the C.P.R. has made a contract to take 1,000 h.p. for the operation of its elevators, etc., at Fort William, Ont.

The elevator at Fort William, Ont., owned by Muirhead and Black, was damaged to the extent of $20,000, by a fire which broke out in the cleaning room, Nov. 11. The building was practically destroyed. It has been decided to rebuild at once.

The Consolidated Elevator Co., a company incorporated under the Dominion Companies' Act, has been licensed to do business in Ontario, under the Ontario act relating to extra-provincial companies, F. W. Young, Fort William, Ont., being its attorney.

The British-America Elevator Co., which has been incorporated under the Dominion Companies' Acts, has been registered in Manitoba under the Foreign Corporations Act. R. T. Evans is assistant General Manager at the head office, 148 Princess St., Winnipeg.

The new elevator at Goderich, Ont., was expected to be so far completed by the end of Nov. as to permit of cargoes being unloaded into it. before the close of navigation. The balance of the inside work would be completed later, so that delivery to the cars can be made during winter.

The Royal Grain Commission, after taking evidence at Goderich and Point Edward, Ont., and inspecting the elevators there, spent several days in visiting elevators and grain-handling plants in the United States. It has since been taking evidence at Portage la Prairie and Brandon, Man.

The C.P.R. grain elevator B. at Fort William, Ont., one day recently put 198,000 bush. into the hold of the str. Matthews in 1 hour 57 minutes, an average of 1,695 bush. a minute. What is said to have been the previous record was made by the Great Northern elevator at Duluth, Minn., which on one occasion had loaded a steamer at the rate of 1,300 bush. a minute.

At a meeting of the committee of management of the Montreal Corn Exchange, Oct. 30, some correspondence with the Department of Railways and Canals in connection with the proposed elevator at Port Colborne, Ont., was read. The last letter from the Department was to the effect that it had been decided to reduce the storage part of the building so as to give storage bins up to a capacity of 800,000 bush., instead of 2,000,-000 bush. as originally contemplated. This capacity would be tested for one year in order to see if the business could be satisfactorily handled. If it was found that the 800,000 bush. capacity was insufficient, it would be increased, but not to exceed 2,000,-000 bush.

Quebec Transportation Club.—Transportation officials in the city of Quebec have organized the Quebec Transportation Club, for educational and social purposes. Active membership consists of heads of departments, and their chief clerks, of railway and steamship companies located in Quebec and Levis, the entrance fee being $2, and the annual subscription $5. Following are the officers elected: Hon. President, J. G. Scott, Quebec and Lake St. John Ry.; Honorary Vice-Presidents, E. A. Evans, Quebec Ry., Light and Power Co.; A. Hardy, G.F. and P.A., Quebec and Lake St. John Ry.; President, J. A. Everell, Supt. Montmorency Division, Q.R. L. and P. Co.; Vice-Presidents, J. Bain, Supt. Q. and L. St. J. Ry.; E. Reynolds, Assistant Superintendent C.P.R.; Secretary-Treasurer, J. S. Blanchet, Asst. to Supt., Q.R.L. and P. Co.; Committee, J. Hone, Jr., City Agent, C.P.R.; C. E. Tenny, City Agent, G.T.R.; J. Matthews, City Agent, I.C.R.; F. S. Stocking, City Agent, Quebec Central Ry.; H. N. Bartlett, Supt. Citadel Division, Q.R. L. and P. Co Some of the members propose making a trip to Winnipeg in December; the Quebec and Lake St. John Ry. having placed the private parlor car Yamachiche at their disposal.

The Lake Superior Corporation is considering tenders for the enlargement of the power plant at Sault Ste. Marie, Mich., at a cost of about $1,000,000.

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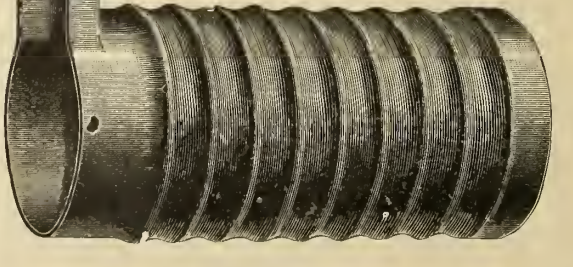

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MARINE DEPARTMENT

Atlantic and Pacific Ocean Marine.

Capt. Stirrett, formerly in command of the Allan Line S.S. Mongolian, died at his home, Saltcoats, Scotland, recently, aged 65.

The new Allan Line steamers are to be named Corsican and Grampian. The Corsican is to be ready in May and the Grampian in Aug., 1907.

Irishmen of Montreal, Toronto and Quebec have presented a clock encased in Irish bog oak to the C.P.R. for the company's S.S. Empress of Ireland.

The Dominion Line will operate a fortnightly service from Portland, Me., to Great Britain, during Dec., Jan. and Feb., and in March will put on a weekly service.

The S.S. Boveric, which was chartered to carry 6,000 tons of steel rails from Sydney, N.S., to Vancouver, B.C., made the trip of 16,000 miles in two and a half months.

The Quebec Steamship Co. has sold its S.S. Fontabelle, and has placed an order on the Clyde for a new steamer of about 3,500 tons register, for its New York-West Indies route.

The German S.S. Mariechen, the salvage of which was successfully accomplished by a British Columbia company, is being broken up at Seattle, Wash., owing to the heavy cost of the repairs.

The Dominion Government has arranged to make an inquiry into the question of shipping rings and their effect upon commerce, and has nominated J. Torrance, Montreal, as a member of the commission.

The Pickford and Black steamships during the winter will maintain a service from Halifax, N.S., three times a month for ports in the West Indies. The sailing days from Halifax will be the 12th, 20th and 28th of each month.

Capt. D. McLaughlin, heretofore chief officer of the Allan Line S.S. Tunisian, has been appointed master of the Buenos Ayrean, on the company's line to South America, in succession to Capt. Gamble, transferred to the Corean.

P. N. Smith, chief officer of the Thomson line S.S. Kildona, fell into the hold during a storm and had one of his legs and some ribs broken. When the steamer reached Montreal, Nov. 5, he was removed to the general hospital for treatment.

The Donaldson Line freight and passenger S.S. Athenian, from Montreal for Glasgow, Scotland, grounded at Cap la Roche, Nov. 9. She was floated, with assistance, at high tide and proceeded to Quebec, where on survey she was found to be uninjured.

The Dominion Line S.S. Kensington went ashore during a snowstorm Nov. 11, at Matane, Que. The 458 passengers were taken off by the Gaspesian and landed at Quebec, Nov. 13. The steamship is reported to be leaking, and had to be lightered before being towed off.

The British Court of Admiralty has dismissed the action of the Johnson Line S.S. Kilmore against the C.P.R. S.S. Montezuma. The action arose out of a collision between the two steamers in the North Sea, July 27, as a result of which the Kilmore was lost. The Court held that the Kilmore was alone to blame for the collision.

A movement has been inaugurated on the Montreal Exchange for the purpose of endeavoring to obtain a Government subsidy for a fast freight service to Great Britain and the continent of Europe. R. Bickerdike, M.P., has been asked, and has agreed to bring the matter before Parliament.

Capt. W. T. Worsnop is quoted as saying that the new service between Vancouver, B.C., and Mexican ports on the Pacific coast, will be inaugurated in Mar., 1907. Three or four vessels, each of about 4,500 tons, and having accommodation for 30 saloon and 300 intermediate passengers, will be put on the route.

Commander Spain, Wreck Commissioner, concluded an investigation Nov. 5 into the stranding of the Nova Scotia Steel and Coal Co.'s steamer Agnar in the St. Lawrence, Sept. 22. It was alleged that the stranding was caused by the C.P.R. S.S. Monmouth passing at an excessive rate of speed. Judgment was reserved.

C. M. Hays, President G.T. Pacific Ry., says there is no truth in the newspaper story that the company has placed orders for the construction of several freight and passenger steamers for service on the Atlantic and Pacific oceans. "We have not yet," he is quoted as saying, "considered such a proposition, let alone placed any orders for steamers."

The Battle Line S.S. Nemea, owned by Wm. Thomson & Co., St. John, N.B., was abandoned in mid-ocean by her crew, owing to a fire. The crew were picked up by the Johnson Line S.S. Vedamore and landed at Queenstown, Ireland, Nov. 1. The Liverpool tug Blazer picked up the Nemea and towed her 100 miles on the way to Queenstown, but had to abandon her. The Nemea sailed from St. John, Oct. 16, with a cargo of deals for Manchester, Eng.

Officials of the Dominion Steamship Line at Montreal state that they are not in a position to say anything about the plans of the line for 1907. Local reports and reports from Liverpool, however, are to the effect that not only will the Majestic and Teutonic of the White Star Line be placed on the route between Liverpool and Montreal, but that orders will be placed in Belfast, Ireland, for the construction of two new steamers of about similar capacity and speed.

The New Zealand Legislature has authorized a contract for a mail subsidy to Vancouver, B.C., of $3,000 a trip to steamers making the voyage in 18 days, the maximum yearly subsidy to be $100,000. Jas. Mills, representing the New Zealand Steamship Line, was at Ottawa recently with a view of getting an increased subsidy for the service from Canada. He promised that if there was a substantial increase in the subsidy the company would put three new steamers on the route.

The Intercolonial Ry. officials at Sydney, N.S., have been instructed to arrange to handle the British mails as soon as the St. Lawrence route is closed for the season. This arrangement will not hold good all winter, as after navigation in the Gulf of St. Lawrence is closed, the mails will be landed at Halifax or St. John. Representatives of the C.P.R. and the Allan Steamship Line met the Government officials at Montreal Nov. 2, to arrange as to the details of the service for the winter. The post office authorities have notified the steamship companies that the mails will have to be landed at Halifax.

The Allan Line S.S. Bavarian, which ran on Wye Rock, Quebec, at the end of the season of 1905, and was subsequently abandoned as a total loss by the owners and underwriters, and given up as practically impossible of salvage by the British wrecking companies, has been got off the rocks by the North American Wrecking Co., and now lies beached at the old Gilmour wharf, Indian Cove, St. Joseph de Levis, Que. It is admitted that the successful floating of the steamer was due in a large measure to the heavy northeasterly wind of Nov. 15, which caused the tide to rise fully 5 ft. above the normal, and enabled the steamer to be lifted by the compressed air tanks, which had been put on board, from her original position. As a result of being thus moved the salvors were enabled to tow the vessel off. The cost of the operation is said to be about $60,000, and it is reported that very little damage has been done to the hull during the year on the rocks. The question of whether the salvors will repair the steamer or break her up is under consideration.

Maritime Provinces and Newfoundland.

The Dominion Government dredge Galveston has arrived at St. John, N.B., to finish up the dredging work at Long wharf and Ballast wharf for the season.

The name of the schooner Island City, official number 103,805, registered at Pictou, N.S., has been changed by order-in-council to that of May W. Edgett.

The Norwegian str. Gwent has been chartered by the Ainslie Mining and Ry. Co., to convey ore from its mines in Cape Breton Island to Montreal and New York.

The Dominion Atlantic Ry. Co.'s str. Prince Edward has been purchased by the Rederi Aktiebolaget Sverige Tyskland, for the fast mail service between Malmo, Sweden, and a port in Germany.

The joint Shipbuilding Commission of the Halifax City Council and the Board of Trade is preparing data for presentation to the Tariff Commission, in connection with the proposal to establish a shipbuilding plant in Halifax.

Orders-in-council have been passed by the Dominion Government defining the boundaries of the ports of St. Ann's Harbor and St. Ann's Bay, N.S., and declaring them to be ports to which the act respecting harbor masters shall apply.

The str. Pors, which left Louisburg June 26 for Yarmouth, got on the rocks at Port Mouton, N.S. She was refloated Aug. 1, and has been repaired at Halifax, N.S. Sixty-four new plates had to be placed in her hull, besides other repairs.

The following appointments have been made by the Dominion Government: B. Blackford, wharfinger at Tiverton, N.S.; E. L. Munro, wharfinger at Whitehead, N.S.; J. Beaudin, harbor master at Little Shippegan and Miscou Gully, N.B.

The Margaretville Steamship Co. is having a new steamer built at Belleveau's Cove, N.B. The new steamer will be larger than the company's present steamer, the Bear River, and was launched Nov. 17. Capt. S. Barker has been appointed master.

The New England Coal and Coke Co. is having three steamers of about 7,000 tons deadweight capacity, built in the United States for the coal carrying trade between Louisburg, N.S., and Boston, Mass. The steamers are to be ready for the summer of 1907.

The Kent Lumber Co. has been incorporated under the New Brunswick Companies' Act with a capital of $23,000, for the purpose, among other things, of owning

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and operating steam and other vessels, and of carrying on a general navigation business. The provisional directors are: C. McFarlane, J. W. Carter, Salisbury, N.B.; J. H. Crandall, Stileville, N.B.; E. A. Riley, G. McSweeney, Moncton, N.B.

C. W. Morse, of the Eastern Steamship Co., has purchased the Mallory Line of steamers trading from New York to the Gulf of Mexico. This gives him control of practically the whole of the passenger and freight steamship lines on the U.S. Atlantic coast. The Eastern Steamship Co. has a line running to St. John, upon which there has been placed a turbine str. named the Governor Cobb. Capt. S. Pike, heretofore master of the company's str. Calvin Austin, has been appointed master. The str. St. Croix, formerly running on this route, has been sold to the Eastern Steamship Co., and will be placed on a route between Fall River and New York.

A number of vessels were lost off the coast of the Maritime Provinces during heavy storms early in Nov. The str. Turret Bell, owned by one of the Mackenzie, Mann & Co. enterprises was driven ashore at Cable Head, St. Peter's Bay, P.E.I., Nov. 2; the crew were safely landed Nov. 4, and the vessel condemned by the underwriters' surveyors Nov. 6. The Norwegian barque Adeona was driven ashore at Richibucto, N.B., and her crew drowned. The other losses were of small vessels, the crews escaping. The Plant Line str. Halifax had a very rough trip from Halifax, N.S., to Boston, Mass., Nov. 3, having to heave to during the storm for about 24 hours.

By an order-in-council rule six of the rules and regulations governing the harbor of Halifax, N.S., passed Oct. 14, 1896, has been rescinded, and a new regulation providing that no vessel entering or leaving the harbor, except those belonging to the British Government or the Dominion of Canada, shall, while inside Georges Island or in the north-west arm, proceed at a greater speed than five miles an hour, under a penalty of $100. Rule 14 passed at the same date has also been rescinded and a new one passed, providing that all vessels lying at anchor in the harbor shall keep a clear and bright light burning at least 20 ft. from the uppermost deck from sunset to sunrise in accordance with article 11 of the rules of the road.

Province of Quebec Marine.

J. R. H. White, formerly manager of the Quebec and Levis Ferry Co., died at Montreal, Nov. 8.

The steamer A. M. Marshall has put up security for $40,000, the estimated amount of damage to the Montreal Harbor Commissioners' dredge No. 1. The question of liability will be settled in the courts.

Commander Spain, Wreck Commissioner, has dismissed the complaint against Pilot Gobeil, for negligence in connection with the grounding of the Norwegian barque Barfod, on Basque Island, Que., in Sept.

The Richelieu and Ontario Navigation Co. declared a quarterly dividend of 1¼%, payable Dec. 1, to shareholders of record, Nov. 17. Dividends were formerly paid half-yearly, the last one being in May, 1904, when 3% was paid.

The hull of the str. Sovereign is the subject matter of an action now before the Quebec courts, in which Sesenwein & Co., Dale & Co., and A. Brooks are interested. The first named purchased the hull from the second, and a seizure was made by A. Brooks.

The action arising out of the collision between the Dominion Coal Co.'s str. Cape Breton, and the Richelieu and Ontario Navigation Co.'s str. Canada, by which the latter was sunk, is on the list for an early hearing before the Privy Council in London, Eng.

DOMINION GOVERNMENT ICEBREAKING STEAMSHIP LADY GREY, PHOTOGRAPHED ON HER TRIAL TRIP. For description see Oct. issue pg. 613.

The Magdalen Island Development Co. now owns the str. Amherst, and is preparing to put on two additional steamers for fishing and trading purposes early in 1907. C. E. Archibald is President, and W. T. Tait, Manager of the company, which has its offices in Montreal.

The str. White Star, well known in Toronto, and latterly operated by the Montreal and Cornwall Navigation Co., is reported to have been sold by Oliver Gillespie to the St. Lawrence Canadian Navigation Co. It is stated that she is to be lengthened during the winter, at Sorel, Que., and in the spring will be put on a route between Montreal and Berthier.

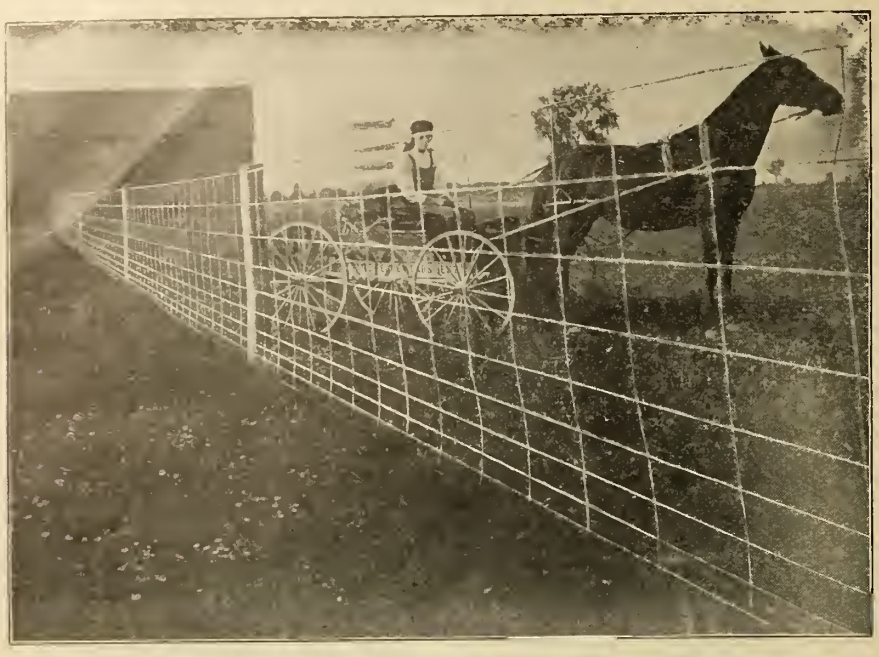
Commander Spain, Wreck Commissioner, with Capt. A. Reid and W. Gauthier as assessors, delivered judgment, Nov. 6, in connection wth the collision between the str. Bay State and the Montreal Harbor Commissioners' dredges 2 and 3, on Sept. 29, 1905. The court found that the Bay State was to blame, and Pilot N. Bellisle who was in charge was cautioned. The master of the Bay State holds a U.S. certificate, and was not under the jurisdiction of the court.

The Department of Marine has arranged to put the icebreaking str. Montcalm on a route along the north shore of the St. Lawrence as far as Seven Islands, carrying mail, etc. The first trip will be made at the latter end of Dec., and three round trips in all will be made during the winter. The object is to ascertain if it is possible to maintain navigation in the river and gulf during the winter. The steamer has been strengthened and fully equipped at the Government yard at Sorel for the winter's work.

The Montreal Sand and Gravel Co. has been incorporated under the Dominion Companies' Act, with a capital of $100,000 and offices at Montreal, to buy and sell gravel, etc., and in connection therewith to acquire and operate steam and other vessels, and to carry on the business of general contractors, forwarders and transportation agents. It is also authorized to acquire the business of a company now carried on under a similar title, and to pay for the same by the issue of fully paid-up stock. The provisional directors are: W. Mann, C. Percy, L. M. Terrill, M. B. Turner, W. R. Staveley, Montreal.

The icebreaking str. Lady Grey, which was described in our Oct. issue, arrived at Quebec from Great Britain, Oct. 22. On Nov. 1, by invitation of the Department of Marine, a number of representative marine men were taken on a trip to Father Point, and on Nov. 7, members of the Shipping Federation, and others, were taken on a trip as far as Crane Island. J. Thom, President of the Federation, on returning to Montreal, said the members were very well satisfied with the manner in which the Department had been improving the St. Lawrence route. There were now lights and buoys at every danger spot on the route, and the channel was now a comparatively straight one from Montreal to the Gulf and much safer than ever before.

C. R. F. Smith, New York, has made a proposition for the improvement of navigation of the Richelieu River from Lake Champlain to the St. Lawrence. He proposes to deepen the river from Lake Champlain to St. Johns, Que.; to enlarge the existing canal to Chambly, and also to construct a canal from St. Johns to Longueuil. The matter is being considered by the International Waterways Commission. The project was considered at a meeting of the International Waterways Commission held at Buffalo, N.Y., Nov. 14. The Montreal Light, Heat and Power Co., which obtains power from the Richelieu River at Chambly, said there could be no objection to the company's proposals so long as it interests were protected. It was stated that the canal company desired to utilize Lake Champlain as a storage basin for the canal, and to utilize about 9,000 cubic ft. per second of the waters of the lake for navigation and power purposes.



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TERMS OF PAYMENT.

An actual settler may purchase not more than 640 acres, on the ten instalment plan by paying a cash instalment at time of purchase, interest at six per cent. on the unpaid purchase money at the end of the first year, and the balance of the principal with interest in nine equal instalments annually thereafter as shewn in the following table :—

160	Acres at	$4.00	per acre,	cash payment	$95.85,	first year's interest	$32.64	and nine instalments of	$80.00
"	"	4.50	"	"	107.85,	"	"	"	36.73	"	"	90.00
"	"	5.00	"	"	119.85,	"	"	"	40.81	"	"	100.00
"	"	5.50	"	"	131.80,	"	"	"	44.89	"	"	110.00
"	"	6.00	"	"	143.80,	"	"	"	48.98	"	"	120.00
"	"	6.50	"	"	155.80,	"	"	"	53.05	"	"	130.00
"	"	7.00	"	"	167.80,	"	"	"	57.16	"	"	140.00
"	"	7.50	"	"	179.75,	"	"	"	61.22	"	"	150.00
"	"	8.00	"	"	196.70,	"	"	"	65.28	"	"	160.00

Purchasers who do not undertake to go into residence on the land are required to pay one-sixth of the purchase money down, balance in five equal annual instalments with interest at the rate of 6 per cent. per annum.

Interest at six per cent. will be charged on overdue instalments.

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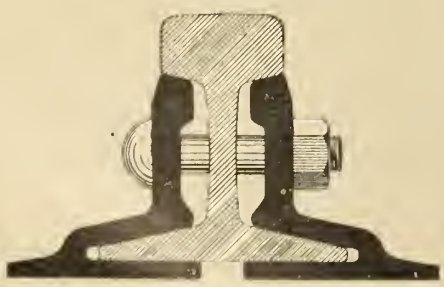

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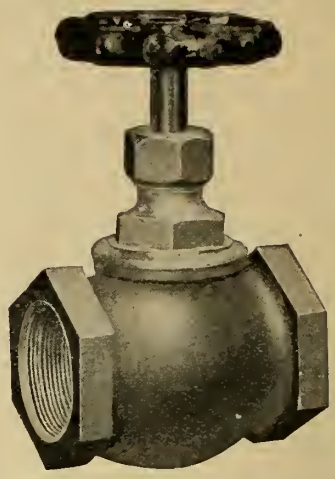

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Ontario and the Great Lakes.

R. O. and A. B. Mackay, of Hamilton, Ont., expect to close a contract shortly for a 500 ft. steamer.

During Oct. there was handled at the C.P.R. docks at Fort William, Ont., 133,000 tons of flour and package freight, against 72,000 tons in Oct., 1905.

The yard at Ottawa where dredges, scows, etc., are built for the Department of Public Works, will, it is reported, be moved to Victoria Island, some distance away.

The improvements in the channel at the Canadian lock at Sault Ste. Marie have been completed. The channel has now a uniform depth of 21 ft., and has been widened by 75 ft.

The car ferry which the G.T.R. and a U.S. railway is having built in Toronto, to operate between Port Hope, Ont., and Charlotte, N.Y., is expected to be launched early in Dec.

The Canadian str. City of New York, which was built in 1863 and has been tied up for some time in Sarnia bay, has been sold at a sheriff's sale to Jos. Glass, Sarnia, Ont., for $2,000.

The Algoma and Hudson Bay Ry. Co's barge Agawa, built in 1902, is to be converted into a steam freighter. The work will be done on the Georgian Bay, where the barge was built.

The lake tug Balize, which recently sank near the Spanish River, Ont., has been raised and taken to Spanish Mills, where temporary repairs were made. She then went under her own steam to Collingwood, where permanent repairs are to be made.

The Lake Carriers' Association has expressed an opinion that the lights recently installed by the Dominion Government at Port Colborne, the Lake Erie entrance to the Welland Canal, are entirely inadequate to safeguard vessels which use the port.

Claims aggregating $1,600 have been filed against the str. Iroquois, which ran between Lewiston, N.Y., and Thousand Islands points during the summer, and which is now tied up for the winter at Springwells, N.Y. The claims are for supplies of various kinds.

The shipments of grain out of Port Arthur and Fort William, Ont., for the season of 1906 up to Oct. 31 were as follows, in bushels: Wheat, 27,672,372; oats, 3,837,963; barley, 492,122; flax, 180,945; total, 32,183,402; carried in foreign vessels, 4,846,167.

The Niagara Navigation Co. has removed its general offices to the Traders Bank Building, Toronto, on the ninth floor, where there is a splendid view of the harbor and lake. The company has also leased a ground floor room on the Yonge St. frontage of the same building for a ticket office.

There was launched at the Caledon Shipbuilding Yards, Dundee, Scotland, Oct. 17, a steamer named Dundee, built to the order of R.O. and A. B. Mackay, Hamilton, Ont. She is practically a duplicate of the Winona, built at Wallsend-on-Tyne, Eng., for the same owners, which is described elsewhere in this issue.

Representatives of the Dominion Marine Association met J. G. Sing, Dominion Government engineer for eastern Ontario, at Kingston, Ont., Oct. 25, to discuss the shoals in the harbor there, which have recently been giving considerable trouble to the navigation of vessels. The association desires that the shoal be dredged to a depth of 22 ft.

The Crystal Beach Steamboat and Ferry Co., and the Lake Erie Excursion Co., have sold their steamers and other property to the Detroit and Buffalo Steamboat Co. It is understood that the new company will put a larger steamer on the route from Buffalo, N.Y., to Crystal Beach, Ont., in 1907, and will build a large hotel at the latter point.

The hydrographic survey work on Lake Superior has been completed for the season and W. J. Stewart, C.E., and F. Anderson, C. E., who have had charge of the work, have returned to Ottawa to tabulate the data gathered. The season is reported to have been a favorable one for observation and the officers did a lot of work between Jackfish Point and Thunder Bay.

L. Thomas, C.E., London, Ont., is laying before boards of trade in Western Ontario, a proposition to construct a canal from about 10 miles from Sarnia, Ont, through Petrolea, Oil Springs, Bothwell and Rodney to Lake Erie. The project is said to be backed by British capital, and to be altogether independent of the plan to construct a canal from St. Joseph on Lake Huron to Lake Erie.

The Upper Ontario Steamboat Co. has been incorporated under the Dominion Companies' Act, with a capital of $99,000 and offices at New Liskeard, Ont., to carry on a general navigation business, to act as wharfingers and warehousemen, and to engage in other businesses which may be legitimately carried on in connection therewith. The provisional directors are: F. S. Brickenden, F. W. Hendry, M. R. Jennings, G. C. Banks, F. L. Sunley, of New Liskeard, Ont.

The new grain carrying str. Edmonton, built at Hebburn-on-Tyne, Eng., for J. and J. T. Matthews, arrived in Toronto, Oct. 25, from Hull, Eng., with a general cargo for Port Arthur, Ont. Her dimensions are: length, 256 ft.; breadth, 42½ ft.; depth, 23 ft. She is provided with double bottom for water ballast, and two complete steel decks. There are six hatches on each deck, and ample derricks and winches for the quick handling of cargo. On a draught of 14 ft. she will carry 72,000 bush.; and fully loaded 110,000 bush.

A proposition has been submitted to the Windsor, Ont., City Council, by the Twentieth Century Transportation Co., for a ferry franchise between that city and Detroit, Mich. The promoters state that they are ready to spend $500,000 upon new steamers if they obtain the necessary franchises. The Dominion Government has notified the City Council that it cannot entertain the request of the Detroit, Belle Isle and Windsor Ferry Co. for an extension of its license from Oct., 1908. The Government recommends that the city authorities and the ferry company endeavor to settle the differences between them. Failing this the Government will be prepared to invite public competition for the performance of the ferry service between Windsor and Detroit.

The breakwater which the Dominion Government is about to construct at Port Arthur, Ont., is to be an extension of the present one, of which, however, 1,000 ft. from the southwestern end is to be removed to the bottom of the work, before the new construction is to be started. The new work is to be 2,760 ft. in length, measured on the seaward face of the timber cribwork, 30 ft. wide, with superstructure of concrete, with a cribwork block at the southern end 80 ft. long by 40 ft. wide, with a superstructure of concrete. The specifications provide that the substructure shall be built in 29 separate cribs, 27 of 100 ft. each, and one of 60 ft. by 30 ft., and the head block 80 by 40 ft. The superstructure is to consist of concrete blocks and mass concrete and shall stand 8 ft. 6 in. above low water or zero on gauge. A berth is to be dredged the whole length of the breakwater, including the head block, to a depth of 26 ft. below low water, and a stone foundation put in.

The St. Lawrence and Chicago Steam Navigation Co. has placed an order for the construction on Lake Erie of a large steel bulk freight steamer. Her dimensions will be: length over all, 510 ft.; length of keel, 490 ft.; breadth, 56 ft.; depth, 31 ft. The hull will be built on the arch girder system with arches every 12 ft.; there will be nine bulkheads, two of them collision bulkheads, and four screen bulkheads, dividing the cargo hold into five compartments. The centre one of the screen bulkheads will be watertight, as an additional factor of safety. The water bottom will be 5½ ft. deep, but will not have hopper sides. The construction will be unusually heavy, and the steamer will have about as much steel worked into her frames and plating as is usually put in a steamer 525 ft. long. She will have a lower stringer 5 ft. below the spar deck, extending from the hatch opening to the ship's side, and a girder of that depth connecting the two stringers in line of hatches. The equipment for loading and unloading will be of the latest type. The hatches will be spaced 24 ft. centres and 10 ft. 6 in. wide fore and aft. The steamer will be equipped with quadruple expansion engines, cylinders 19, 27, 40 and 48 in. diameter, by 42 in. stroke, steam being supplied by three Scotch marine boilers 12 ft. diameter, by 12 ft. long, at a working pressure of 210 lbs. Forced draught will also be provided.

Manitoba, Saskatchewan, Alberta, Etc.

Navigation on the Red and Assiniboine Rivers at Winnipeg closed Nov. 5.

The water in the Saskatchewan River at Edmonton, Alta., was so low at the end of Oct., that the ferries and trading vessels could only carry half loads.

The new str. Northern Light, built at Athabasca Landing, Alta., last winter, which left for the Lesser Slave Lake about the end of July, has been tied up for the winter, owing to low water between the mouth of the Little Slave River and the Moose River.

Navigators on the waters between Athabasca Landing and Lesser Slave Lake, say that the expenditure of about $35,000 by the Dominion Government on the river between Moose River and the Hudson's Bay Co.'s post on the lake, would so improve the navigation that there would be only 20 miles of portages between the Landing and the head of Lesser Slave Lake.

A conference representing the Dominion Government and the provinces of Manitoba, Ontario and Saskatchewan, was held at Ottawa, Nov. 12 and following days, on the subject of the rearrangement of the boundaries of Manitoba. The important question involved is as to the giving of Manitoba a port on Hudson Bay. The northern boundary of Ontario is the Albany River, which falls into James Bay, the southern portion of Hudson Bay, and a suggestion has been made that Ontario's western boundary should be extended to 93 west longitude, which would give that province a deep water port at the mouth of the Nelson River; and to allot to Manitoba the balance of the present territory of Keewatin. This would give Fort Churchill to Manitoba as a port.

B.C. and Pacific Coast Marine.

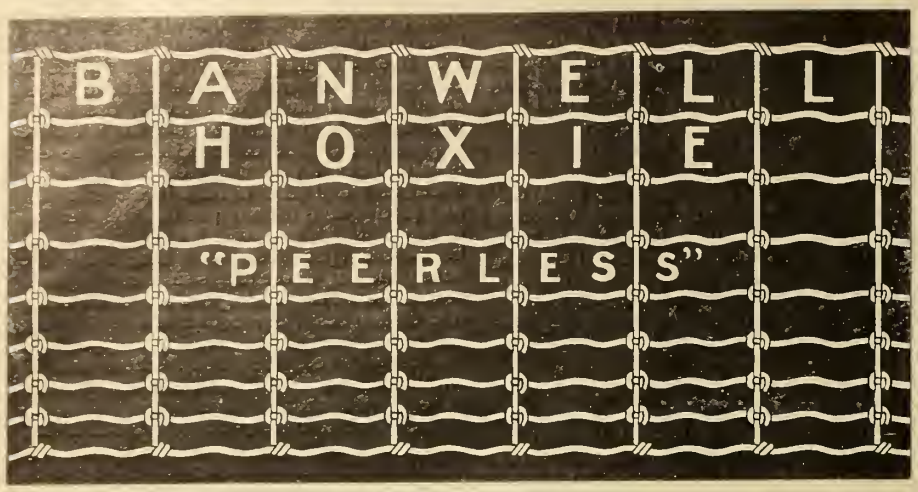
The Dominion Government has sold the str. Vidette, used by the Northwest Mounted Police in patrolling the Dawson River, Yukon.

The Wilbur Crimmon, a stern-wheel steamboat operated on the Lower Yukon River, has been sold to the Dominion Commercial Co.

Capt. J. W. Troup, General Superintendent B.C. Coast Service, C.P.R., has been appointed a member of the Lighthouse Board by the Dominion Government.

Capt. W. Langley has bought the gasolene-propelled vessel Tanner, now lying in Lake Le Barge, Yukon, and will transfer her to the Lower Yukon River in the spring.

Capt. Newcombe, of the Dominion Government str. Kestrel, engaged in the fisheries protection service on the Pacific coast, has been suspended from his command.



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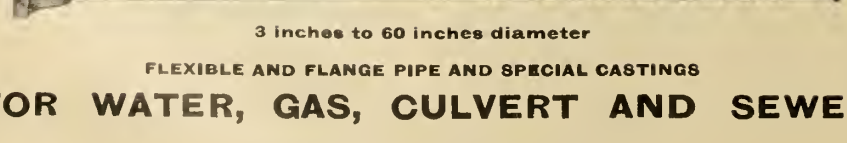

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Lv. Montreal	*9.00 a.m.,	*7.45 p.m.	
Arr. Lowell	*7.29 p.m.,	*6.37 a.m.	
" Worcester	†9.04 "	*9.13 "	
" Boston	*8.15 "	*7.30 "	

VIA G.T.RY., AND WHITE RIVER JCT.

Lv. Montreal	*9.01 a.m.,	*8.40 p.m.	
Arr. Lowell	*6.11 p.m.,	*7.17 a.m.	
" Worcester	†9.04 "	*9.13 "	
" Boston	*6.55 "	*8.05 "	

VIA G.T.RY., WEST SHORE & ROTTERDAM

Lv. Toronto		*12.01 p.m.
" Niagara Falls		*3.31 "
" Buffalo	*4.30 a.m.,	*7.20 "
Arr. North Adams	*1.08 p.m.	*5.11 a.m.
" Worcester	*4.55 "	*9.59 "
" Boston	*5.20 "	*9.50 "

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The jury acquitted Capt. Griffin, of the C.P.R. str. Princess Victoria, upon the charge of manslaughter arising out of the sinking of the tug Chehalis, near Vancouver, July 21.

Capt. Walbran, of the Dominion Government str. Quadra, has been transferred to the command of the Dominion Government str. Kestrel, owing to the suspension of Capt. Newcombe.

R. D. Pinneo, formerly General Freight and Passenger Agent, White Pass and Yukon Route, is now engaged as Northwest Agent of the Pacific Coast Steamship Co., with offices at Seattle, Wash.

An order-in-council has been passed declaring Prince Rupert, B.C., the Pacific coast terminal of the Grand Trunk Pacific Ry., now under construction, to be a customs port of entry and warehousing port.

The snag boat which the Dominion Government is having built at Vancouver, for service on the Skeena River, was launched, Oct. 29. The dimensions are: length, 100 ft.; breadth, 27 ft.; depth, 6 ft. The machinery is being supplied by the Polson Iron Works, Ltd., Toronto.

The investigation into the allegations against the Shipping Master at Vancouver, B.C., was concluded, so far as the hearing of evidence was concerned, Nov. 5. A day will be fixed for the hearing of arguments, and the commissioners will afterwards report to the Department of Marine.

The Union Steamship Co., Vancouver, B.C., has placed an order on the Clyde, Scotland, for a steel screw steamer of the awning deck type, with double bottom. The new steamer will have a length of 150 ft., a beam of 30 ft., and will be 16½ ft. deep. Her engines are to develop a speed of 12 knots an hour.

We are advised from Montreal that the reports appearing in Pacific coast marine papers, that it is the intention of the C.P.R. to build, during the year 1907, a sister ship to the Princess Victoria; that Capt. J. W. Troup has been instructed to prepare the necessary plans, and that the new steamer will be fitted with turbine engines, are not correct.

A tug, the Storm King, is being built for Blain and Symons. The hull was built at New Westminster, and towed to Vancouver, where the engines are being installed. The Storm King's dimensions are: length, 90 ft.; breadth, 19 ft.; depth, 10 ft. The engines are to be of the fore and aft compound type, and steam will be supplied by a Scotch marine boiler.

Application will be made at the current session of the Dominion Parliament for an act incorporating a company with the title of the Western Rivers Improvement Co., for the purpose of improving the navigation of Kamloops Lake, and adjacent waters, and to charge tolls in connection with the construction of slides, booms, etc. J. C. Shields, Regina, Alta., is solicitor for the applicants.

The C.P.R. is applying to Ottawa for a re-hearing of the facts connected with the sinking of the Union Steamship Co.'s tug Chehalis by the C.P.R. str. Princess Victoria on July 21. The Union Steamship Co. has entered an action in the Admiralty courts to recover damages for the loss of the steamer, and a number of individual suits have been entered in the civil courts against the C.P.R. by relatives of the passengers who lost their lives in the collision.

The Puget Sound Navigation Co. is reported to have purchased the steamers Iroquois and Chippewa, on the Great Lakes, and will sail them round Cape Horn to Seattle, Wash. The Iroquois is expected to arrive first, when she will be put on the run to Victoria, B.C., replacing the Indianapolis. The steamers Iroquois and Chippewa were built at Toledo, Ohio, and have hitherto been operated on the Great Lakes. The Iroquois was built in 1901, her dimensions being: length, 214 ft.; breadth, 34 ft.; depth, 21 ft.; and the Chippewa was built in 1900, her dimensions being: length, 170 ft.; breadth, 34 ft.; depth, 15 ft. Capt. J. J. Johnson, Seattle, Wash., superintended the fitting out of the vessels on the Great Lakes for their long trip to the Pacific coast.

CAR FERRY ASHTABULA, RUNNING BETWEEN PORT BURWELL, ONT., AND ASHTABULA, OHIO.
For description see June issue, page 361.

The New Steamship Winona.

The Winona, which was recently placed on the Great Lakes for one of the companies managed by R.O. and A. B. Mackay, Hamilton, Ont., is a single-screw steel steamer, built to the highest class of the British Corporation of Shipping. Her principal dimensions are: length over all, 257 ft. 8 in.; extreme breadth, 43 ft. 6 in.; moulded depth, 23 ft. 9 in. The aim of the designers was to give the vessel the largest possible deadweight capacity on a minimum draught, while at the same time permitting the steamer to pass through the Welland Canal. The Winona will carry 3,500 tons on a mean loaded draught of 18 ft. 11 in., and 2,000 tons on a mean loaded draught of 13 ft. 6 in. She has a straight stem and round or elliptic stern, and is fitted with a poop and full top-gallant forecastle. The propelling machinery is placed aft; she has two large cargo holds constructed on the deep frame system with no hold beams. For the rapid loading and unloading of the vessel hatchways 9 ft. 4 in. by 28 ft., spaced 24 ft. centres, are provided; three powerful derricks are stepped on the masts and three large winches are provided. Complete provision has been made for warping and mooring the vessel. A large patent steam windlass is fitted under the forecastle, with a capstan above on the forecastle deck, worked from the windlass. There is also a steam capstan on the poop. Steam steering gear is provided, together with a strong screw spare steering gear, fitted in a house in the poop. A special feature is a cargo bin 24 by 28 ft., built of steel and placed on the deck just forward of the boiler room, and provided with the necessary wood covers and battening down arrangements. This bin can also be used as a coal bunker. The permanent side bunkers in the boiler room are fed by two side shoots in the casing. A reserve bunker is situated immediately forward of the boiler room. Great care has been taken in providing comfortable accommodation for the officers and crew. The captain's cabin, chart room and wheel-house are fitted on the forecastle head, giving an efficient look-out. The accommodation for the officers and seamen, with lavatories and all conveniences, are fitted below the forecastle. Accommodation for the engineers, with mess room, lavatories, etc., is situated under the poop deck. The firemen and steward are also housed under this deck, together with the crews' messroom, galley, etc. The vessel carries water ballast in a double bottom all fore and aft, and in the fore peak. The tank under the engine and boilers is raised and specially strengthened and forms a seating for the propelling machinery. The machinery consists of a set of direct acting triple expansion engines working on three cranks, the cylinders being 20½, 33 and 54 in. diameter, by 36 in. stroke. Steam is supplied by two single-ended boilers of the multitubular type, working at 180 lbs. pressure. The Winona is the latest of several steamers built by Swan, Hunter & Wigham Richardson, Ltd., Wallsend-on-Tyne, England, for trading on the Great Lakes, and in her the builders have combined the result of their experience in the special requirements of this trade.

The steamer, which left Owen Sound, Nov. 16, after undergoing repairs on account of being ashore, ran ashore again in a blinding snow storm, on one of the Duck Islands, Nov. 17. She subsequently got off, but as the forward compartment was full of water it was decided to beach her, which was done in a bay near by. The steamer has since been floated and is being repaired at Collingwood.

Notices to Mariners.

The Department of Marine has issued the following notices to mariners:

No. 109. Sept. 26.—Newfoundland—263. Cape Bauld, fog alarm changed.

No. 111. Sept. 30.—Ontario—265. Lake Erie, Port Colborne, gas beacon established on eastern breakwater. 266. Lake Erie, Port Colborne, light on western breakwater improved.

No. 112. Oct. 6.—Quebec—267, River St. Lawrence, north shore, Escoumains, range lights established. 268. River St. Lawrence, South Traverse, Algernon rock, lighthouse foundation changed. 269. River St. Lawrence above Quebec, Pointe Nicholas, gas buoy changed. 270. River St. Lawrence above Quebec, Pointe aux Trembles, gas buoy changed.

No. 113. Oct. 10.—Ontario—271. Lake Erie, west end, wreck off Kingsville. 272. Lake Erie, Detroit River entrance, shoal southward of Bar Point Island, buoys moved. 273. Georgian bay, Meaford, improvement of Meaford breakwater light.

No. 114. Oct. 11.—Nova Scotia—275. Bay of Fundy, Brier Island, fog alarm changed. 276. South coast, Halifax harbor, Mauger beach, tower raised and changed in color, light improved. 277. South coast, Halifax harbor, McNab Island, lighthouse changed in color. 278. South coast, Halifax harbor, outer buoy off entrance changed.

No. 115. Oct. 11.—British Columbia—279. West coast of Vancouver Island, Kyuquot sound, Lookout Island, light to be established. 280. Vancouver Island, south coast, Strait of Juan de Fuca, Trial Island, light established. 281. Broughton strait, Malcolm Island, Pultney point lighthouse, hand foghorn established.

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LIMITED
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No. 116. Oct. 15.—Ontario—282. Ottawa River, Chat's Lake, Arnprior Island, lighthouse replaces mast, light changed in color.

No. 117. Oct. 15.—British Columbia—285. Vancouver Island, west coast, Nootka Island to Estevan point, notice boards established. 286. Vancouver Island, southwest coast, Pochena point, lighthouse and fog alarm station under construction, temporary light. 287. Strait of Georgia, Fraser River entrance, Sandheads, changes in buoyage.

No. 118. Oct. 15.—Quebec.—288. Saguenay River, near Chicoutimi, River Caribou, back range light tower rebuilt. 289. River St. Lawrence, below Quebec, Morin shoal, gas and signal buoy established. 290. River St. Lawrence below Quebec, Pointe aux Orignaux, wharf extended.

No. 119. Oct. 16.—New Brunswick—291. Gulf of St. Lawrence, Pokemouche, outer range light discontinued.

No. 120. Oct. 16.—Quebec—293. River St. Lawrence, ship channel between Quebec and Montreal, Batiscan to Champlain, channel widened, buoyage changed. 294. River St. Lawrence, ship channel between Quebec and Montreal, Champlain upper range, new lights put in operation. 295. River St. Lawrence, Quebec to Montreal, ship channel, Nicolet, range lights exhibited, pier under construction. 296. River St. Lawrence, Lake St. Peter, ship channel, curve no. 2, range lights established. 297. River St. Lawrence, Quebec to Montreal, ship channel, experimental red lights in gas buoys.

No. 121. Oct. 23.—Quebec—298. River St. Lawrence below Quebec, South traverse, middle ground gas buoy changed. 299. River St. Lawrence below Quebec, south traverse, middle ground gas buoy changed. 300. River St. Lawrence below Quebec, traverse of St. Roch, upper traverse gas buoy changed. 301. River St. Lawrence below Quebec, south traverse, Port Joli, gas buoy changed. 302. River St. Lawrence, ship channel between Quebec and Montreal, change in position of buoy no. 232, east of Trembles shoals.

No. 122. Oct. 25.—Ontario Lighthouse Division—303. Quebec, River St. Lawrence above Montreal, Lake St. Louis, Chateauguay lighthouse temporarily changed. 304. Lake Huron, Mississagi strait, fog alarm changed.

No. 123. Oct. 26.—New Brunswick—305. Bay of Fundy, off Old Proprietor shoal, gas and whistling buoy to be established. 306. Bay of Fundy, north of Wolves, gas and whistling buoy to be established. 307. East coast, Miramichi bay, Neguac gully, front range light not shown temporarily.

No. 124. Oct. 26.—British Columbia—308. Chatham sound, Prince Rupert Harbor (Tuck Inlet), rocks discovered, beacons erected.

No. 125. Oct. 27.—British Columbia—309. Vancouver Island, west coast, Cape Beale, permanent light resumed.

No. 126. Oct. 29.—British Columbia—310. Chatham Sound, Cunningham passage, position of shoal east of Fortune Point. 311. Chatham Sound, Inskip passage, Port Simpson entrance, Birnie Island, position of light. Alaska—312. Revillagigeds channel entrance, Tree point light, red sector established. 313. Prince William Sound, Bligh Island, buoy established.

No. 127. Oct. 30.—Ontario—314. Lake Erie, Port Burwell, range lights established. 315. Lake Huron, north channel, Sulphur Island, lighthouse rebuilt.

No. 128. Oct. 31.—Quebec—316. River St. Lawrence, Baie St. Paul, light discontinued. 317. River St. Lawrence, Quebec to Montreal ship channel, front light of down stream and back light of up stream range, illuminating apparatus changed.

No. 133. Nov. 12.—Quebec—333. River St. Lawrence, Father Point, change in characteristic of fog alarm.

No. 135. Nov. 14.—Quebec—336. Gulf of St. Lawrence, east end of Anticosti, lightship off her station.

The following have been issued by the U.S. Hydrographic Department:

No. 43. Oct. 27.—Lake Superior—1854. Gull Rock lighthouse, shoal to southward. St. Mary's River. 1855. Round Island shoal, channel widened. 1856. Mud Lake, Pointe aux Frenes, dock building, lights exhibited, lightbuoy moved. Lake Huron.—1858. Strait of Mackinac, Graham shoals, shoal spot located. Detroit River—1860. Ballard's Reef channel, lightbuoys established. 1861. Bar Point shoal, buoys moved.

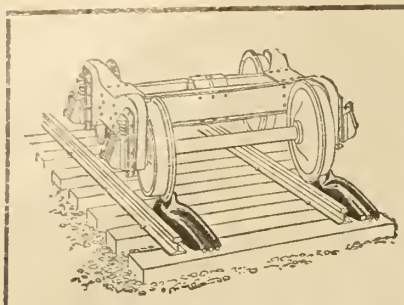
Georgian Bay-Montreal Canal.

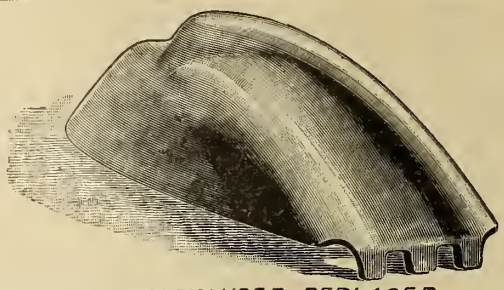
The New Dominion Syndicate is the title of the British company which is promoting the construction of a deep waterway from Georgian Bay to Montreal. At a meeting of the shareholders in London, Oct. 23, some information was given by R. W. Perks, M.P., and J. A. Malcolm, Manager and Secretary, in regard to what had been done, and what it was hoped to arrange to do in the future. R. W. Perks is associated with the contracting firm of Walker & Co., which has been prominently connected with the project since its inception. The charter for the construction of the canal was taken over by the New Dominion Syndicate in 1898, and since then very considerable expense has been incurred both in England and in Canada. It has been necessary to go to the Dominion Parliament no less than seven times to keep the charter alive, and to obtain various other powers, and the last act that was obtained is one which places the company in a position in which it is hoped that it will obtain the capital necessary to proceed with construction. This act passed in 1906, Mr. Malcolm pointed out, authorizes the increase of the company's capital from $10,000,000 to $50,000,000, and the borrowing powers from $25,000,000 to $100,000,000. This project, Mr. Perks explained, is to construct a waterway with a depth of 22 ft. throughout. By the construction of such a waterway from Georgian Bay through the French River and Lake Nipissing, past Ottawa to Montreal, the carriage of practically the whole of the grain trade of the Northwest would be secured. Its construction would place Montreal in a position of commercial pre-eminence in the Dominion, if not upon the Atlantic coast. The work of surveying the route, some 425 miles in length, with a minimum width of 300 ft. at the bottom, was not an easy task. It was carried out under the direction of the late G. Y. Wisner, of Detroit, Mich., who was one of the U.S. members of the International Waterways Commission, and H. A. Purdon, member of the Institute of Civil Engineers, the present chairman of the syndicate. It is now claimed, said Mr. Malcolm at the meeting, that for the first time the project has been placed on an intelligent and workable basis, and rendered attractive to capitalists. It is the intention of the company to submit all its plans, which were signed by Mr. Wisner, to the Dominion Government, and instructions have been given by the directors to J. Edgerly, the syndicate's Canadian representative, to see that this is done upon his return. The present trade on the Great Lakes is 50,000,000 tons a year, and the bulk of this is en route to the Atlantic seaboard. The projected route, it is claimed, would be the cheapest, coolest and quickest, effecting a saving of 72 hours in time and 500 miles in distance. It would also be the most convenient route, as it would preclude the necessity of transhipment and costly handling. While the project is called a canal, Mr. Malcolm claimed it was not really a canal. It would be a system of internal navigation for ocean-going vessels—a waterway created by nature and presenting no physical difficulties—the linking together of existing deep and navigable stretches of lakes and rivers by means of only 33 locks, including double locks. The canalization would be mostly in the vicinity of the locks and at the summit level, and when complete would enable ocean-going steamers of 8,000 to 10,000 tons burden, drawing 20 ft. of water, attaining a speed of eight to ten knots an hour, to sail from any of the ports on the Upper Lakes to any European port. Construction would occupy about five years and cost about $100,000,000. By the construction of the canal the company would have something like 1,000,000 water horse power available for the operation of an electrical light plant the whole length of the waterways, and for the company's other purposes and for sale.

Sault Ste. Marie Canals Traffic

The following commerce passed through the Sault Ste. Marie canals in Oct., 1906:

ARTICLES			CANADIAN CANAL	U.S. CANAL	TOTAL
Copper	Eastbound	Net tons	969	10,637	11,606
Grain	"	Bushels	2,890,318	4,851,339	7,741,657
Building stone	"	Net tons	....	1,750	1,750
Flour	"	Barrels	474,252	557,353	1,031,605
Iron ore	"	Net tons	501,804	4,320,129	4,821,933
Iron, pig	"	Net tons	....	1,568	1,568
Lumber	"	M.ft.B.M.	5,183	106,829	112,012
Silver ore	"	Net tons	....	....	....
Wheat	"	Bushels	7,520,879	9,690,935	17,211,814
General merchandise	"	Net tons	9,986	6,312	16,298
Passengers	"	Number	723	637	1,360
Coal, hard	Westbound	Net tons	30,508	131,419	161,927
Coal, soft	"	Net tons	170,960	841,182	1,012,142
Flour	"	Barrels	....	....	....
Grain	"	Bushels	....	....	....
Manufactured iron	"	Net tons	14,438	28,069	42,507
Salt	"	Barrels	13,955	92,854	106,809
General merchandise	"	Net tons	54,939	65,248	120,187
Passengers	"	Number	605	314	919
Freight: Eastbound		Net tons	866,532	4,981,860	5,848,392
Westbound		Net tons	272,840	1,079,846	1,352,686
Total freight		Net tons	1,139,372	6,061,706	7,201,078
Vessel passages		Number	738	2,121	2,859
Registered tonnage		Net tons	1,074,194	4,756,443	5,830,637





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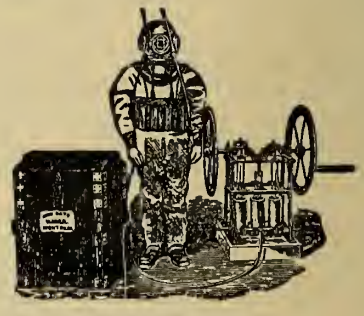

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LIST OF STEAM VESSELS REGISTERED IN CANADA FROM OCT. 15 TO NOV. 15.

Name.	No.	Where and When Built.	Engines, etc.	Length	B'dth.	Depth.	Gross tons.	Reg. tons.	Home Port.	Owners.
Alaska	122,229	Sorel, Que., 1906	Screw 66 N.H.P	102.3	23.7	14.2	246	144	Montreal, Que.	Sincennes-McNaughten Line, Montreal.
Elk	122,153		" 2 "	30.8	7.7	3.6	11	8	Vancouver, B.C.	D. Burns, Vancouver, B.C.
Evangel	122,154		" 1 "	30.0	10.0	3.2	11	8	" "	H. Ford, Vancouver, B.C.
Evelyn	111,888	Lakefield, Ont., 1906	" ½ "	30.0	6.8	2.8	4	3	Peterborough, Ont.	J. Blewett, Lakefield, Ont.
Hercules	122,217	Toronto, Ont., 1906	" 65 "	100.0	23.1	11.6	234	137	Toronto, Ont.	Polson Iron Works, Ltd., Toronto.
Lady Grey	122,014	Barrow-in-Furness, E.,1906	" 353 "	172.0	32.2	15.9	733	65	Ottawa, Ont.	Minister of Marine and Fisheries.
Mariposa	122,152	Vancouver, B.C., 1906	" 1 "	22.8	6.9	3.0	4	3	Vancouver, B.C.	W. B. Hood, Vancouver, B.C.
Royal	116,667	Honey Harbor, Ont., 1906.	" 2 "	31.4	7.6	3.2	5	3	Midland, Ont.	Frise Bros., Midland, Ont.

LIST OF SAILING VESSELS AND BARGES REGISTERED IN CANADA FROM OCT. 15 TO NOV. 15.

Name.	No.	Where and When Built.	Rig.	Length	B'dth.	Depth.	Gross tons.	Reg. tons.	Home Port.	Owners.
Cumulus	122,152	Harrison Hot Spgs.,B.C.'06	Sloop	39.7	14.0	5.9	23	23	Vancouver, B.C.	E. G. Warde, Harrison Hot Springs, B.C.
Defender	121,910	Shelburne, N.S., 1906	Schr.	74.0	19.7	8.0	53	53	Barrington, N.S.	P. E. Crowell, Barrington, N.S.
Florence B	122,004	La Have, N.S., 1906	"	60.8	17.0	7.9	46	46	Lunenburg, N.S.	Atlantic Fish Co., Lunenburg, N.S.
H. L. Montague	122,005	Lunenburg, N.S., 1906	"	98.6	24.5	10.4	111	96	" "	W. C. Smith, Lunenburg, N.S.
Iona & Maggie	121,904	Clark's Harbor, N.S., 1906.	Sloop	30.0	12.0	5.8	11	11	Barrington, N.S.	C. Ross, Cape Island, N.S.
L. N. Scott	122,230	Three Rivers, Que., 1903	Barge	78.0	16.0	4.7	42	42	Montreal, Que.	C. Las Oureau Lumber Co., Montreal.
Monarch	116,668	Welland, Ont., 1906	Dred.	100.0	..	9.3	474	372	Midland, Ont.	Canadian Dredge&Construction Co., Midland
St. Adolphe B.B.	121,928	Ile aux Coudres, Que., 1906	Schr.	47.2	15.8	5.7	25	25	Quebec, Que.	A. Degagne, Ile aux Coudres, Que.
St. Francois X'r.	121,927	River St. Francois, Q., 1906	Sloop	68.4	22.9	5.4	49	49	" "	T. Lavoie, River St. Francois, Que.
St. Jean Baptiste	121,926	Les Ecureuils, Que., 1906.	Schr.	70.2	20.6	6.4	62	62	" "	J. B. Dussault, Les Ecureuils, Que.
Thelma	117,055	Canso, N.S., 1906	"	39.0	13.0	7.0	15	15	Canso, N.S.	A. M. Roberts, Canso, N.S.
White Fish	122,054	Shippegan Is., N.B., 1906.	"	36.0	13.2	5.5	13	13	Chatham, N.B.	E. Chiasson, Shippegan Island, N.B.

St. Lawrence River Lights and Buoys.

During the season of navigation, which is now practically closed, the Department of Marine has done considerable work in constructing new lighthouses and installing new fog alarms on the St. Lawrence River below Quebec. In the Strait of Belle Isle a new lighthouse and fog alarm system have been installed with water connection, and at Forteau Bay and Greenly Island, similar work will be completed this fall and in operation next spring. A new lighthouse, waterworks and fog alarm system in course of erection at Belle Isle will also be finished this fall, likewise similar aids to navigation at Cape Bauld and Cape Norman. At Cape Anguille, Newfoundland, extensive works are being constructed, including a fog alarm station and keeper's dwelling that will be finished next year. A new fog alarm station at Cape Ray, and lighthouses at Cape Magdalen and Martin River are completed. Besides the foregoing the Department will complete this fall a new fog alarm station at Seven Islands, and has erected four new lights along the Saguenay River. The Quebec agency is often handicapped for want of another boat and properly equipped workshops.

Between Quebec and Montreal very extensive additions have been made to the lighting system. All the new lighthouses are being built on large concrete piers carried sufficiently high to be above the reach of the spring ice shoves, so that the new lights can be available on the opening of navigation. A number of improved gas buoys have also been placed in position between Quebec and Montreal, the position and character of which are described in the notices to mariners issued by the Department, and of which we publish a monthly summary.

Among the Express Companies.

A. Antisdel, Vice-President American Express Co., died at Chicago, Ill., Oct 31.

The Canadian Northern Express Co. is operating over the Canadian Northern Ontario Ry. between Toronto and Parry Sound.

W. Jamieson, cashier Dominion Ex. Co., Winnipeg, was presented with an address, a signet ring, and a case of pipes by the staff, Nov. 6, on his leaving for Ottawa.

Ontario Fruit Growers at their annual convention in Toronto, Nov. 8, passed a resolution in favor of agitating for a reduction in the express rates upon shipments of fruit.

The Maritime Express Co. is now operating over the lines of the Halifax and South-Western Ry., as well as over those of the Dominion Atlantic Ry. The latter company's lines include the Midland Ry. of Nova Scotia.

Telegraph and Cable Matters.

The G.N.W. Telegraph Co. has opened offices at Little River East and St. George, Que.

The Temiskaming and Northern Ontario Ry. operates a downtown office at New Liskeard, Ont., as well as one at the station.

Jno. Fletcher is acting Superintendent C.P.R. Telegraphs at Vancouver, B.C., for three months while J. Wilson is on a trip to Australia.

H. Latham, Secretary of the Pacific Cable Board, was thrown from his horse while out hunting near Slough, Berks, Eng., Oct. 27, and died from the injuries received.

The Chairman of the Temiskaming and Northern Ontario Ry. Commission says that the telegraph line along the railway is well handled and give a good service. The suggestion that the line should be extended to Toronto is one for the Government to deal with.

The Northern Commercial Telegraph Co. is reported to have purchased 200,000 shares, representing a controlling interest, in the Dominion De Forest Wireless Telegraph Co. The preliminary prospectus of the Northern Commercial Telegraph Co. has been issued in London, Eng., and mentions a capital of £750,000.

C. H. R. Reynolds, General Manager of the Pacific Cable Board, has returned to London, Eng., after a trip of inspection of the offices of the cable in Australia, Fanning Island, and Vancouver Island. He says that business is steadily increasing, and with the more favorable conditions now obtaining it is hoped in a few years' time to carry a great traffic over the line.

The International conference on wireless telegraphy at Berlin, Germany, has decided to adopt "radio-telegraphy" as the official name. An agreement has been reached upon the matter of free intercommunication between vessels and stations equipped with the apparatus of different systems. Great Britain and Italy, however, signing with a reservation to protect their existing contracts with the Marconi Wireless Telegraph Co.

Judgment has been given in favor of the plaintiff in an action in the Quebec courts to recover $130.95 difference in the price of some pigs shipped from Madoc. The plaintiff handed in a telegram to the G.N.W. Telegraph Co. that he could ship pigs at $7.70 a hundredweight, and when the telegram was delivered it read $7.20. The judge gave a verdict for $117.85, the difference between $7.20 and $7.60, the market price at the time.

Geo. Black, who recently retired from active service, had had charge of the office of the G.N.W. Telegraph Co. at Hamilton, Ont., since 1858. He entered the service of the Montreal Telegraph Co. at Montreal in 1854; was in the G.T.R. service at St. Hyacinthe, Que., for a short period, and for about three years before moving to Hamilton had charge of the Montreal Telegraph Co.'s office at Brockville, Ont. An address and an easy chair were presented to Mr. Black by the local staff, upon his retirement Nov. 9.

Otto Schlick, a German engineer, is reported to have perfected an apparatus which, when set in motion, counteracts any tendency of a vessel to roll from side to side.

Capt. Amundsen and his crew of five, who, sailing from Christiania, Norway, June 16, 1903, succeeded in making the northwest passage, have finally returned to their homes from the Pacific Ocean.

The Dominion Government str. Adventurer has returned to Halifax, N.S., from Hudson Bay, and other northern waters. She brought mail from Northwest Mounted police stations and trading ports, some of it being dated three years ago.

A further statement as to the affairs of William Petersen, Limited, of Newcastle-on-Tyne, England, has been issued by the Official Receiver. The receipts were £14,633 7s. 2d., against £22,475 8s. 5d., estimated by the debtor company; the costs of winding up, etc., to Oct. 22, were £1,732 4s. 0d.; the creditors had received £10,536 1s. 1d., leaving a balance of £2,365 2s. 1d. on hand. There are some matters yet to be adjusted, and the Official Receiver hopes to declare a final dividend early in 1907.

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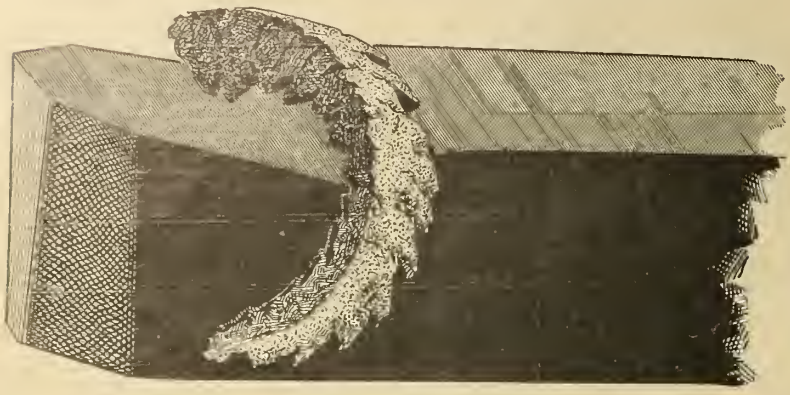

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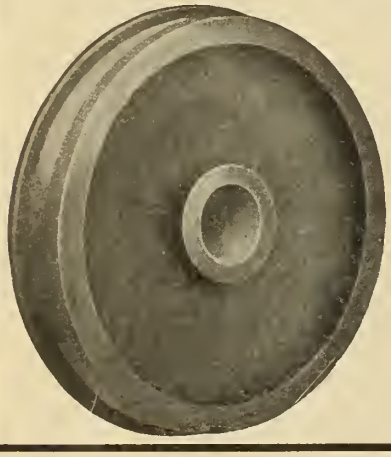

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The annual report for the year ended June 30, showed capital stock $97,370,000, of which $29,394,000 is in the treasury. The bonded debt is $28,615,000, of which, $20,000,000 is in 4½% funding and real estate mortgage bonds, due 1950, and the balance are 5% collateral trust bonds due 1938, against which bonds and stocks bearing the company's guarantee of interest or dividends at 6% have been deposited with the trustee. During the year $111,000 collateral trust bonds were issued in exchange for a corresponding amount of capital stock of the Maine Telegraph Co., upon which, under lease of that company, interest was being paid at the rate of 10% a year.

		Increase.	Decrease.
Revenues.	$30,675,654.53	$1,642,019.49	
Expenses.	23,605,071.65	1,759,501.33	
Net revenue....	$7,070,582.88	.....	$117,481.84
Interest on bonds...	1,327,975.00	100,775.00	
Profits....	$5,742.607.88	.....	$218,256.84
Dividends.	4,868,088.75	5.00	
Surplus...	$874,519.13	.....	$218,261.84

Sur lus July 1, 1905.....$15,974,209.25
Carried to surplus as above.....874,519.13
Surplus June 30, 1906.....$16,848,728.38

Following are the officers and directors for the current year: President and General Manager, R. C. Clowry; Vice-Presidents, G. J. Gould, J. B. Van Every, T. F. Clark; Acting Vice-President in charge of contracts, G. W. E. Atkins; Secretary, A. R. Brewer; Treasurer, M. T. Wilbur; auditor, J. B. Van Every; General Counsel, J. F. Dillon; General Attorney, G. H. Fearons; Solicitors, R. Taggart, H. D. Eastabrooks; Executive Committee: T. T. Eckert (chairman), R. C. Clowry, J. T. Terry, G. J. Gould, J. J. Slocum, E. Gould, F. J. Gould, J. H. Schiff, W. L. Bull.

Owing to a technicality in connection with the advertising, a further special meeting to ratify the issue of $25,000,000 of convertible bonds was held Nov. 24.

General Telephone Matters.

The Nova Scotia Telephone Co. has issued a subscribers' directory of its lines corrected to Oct. 31.

The B.C. Telephone Co. has under consideration a plan to instal only nickel-in-the-slot instruments in New Westminster.

The Bell Telephone Co.'s long distance line between Winnipeg, Man., and Regina, Sask., has been completed, and the first conversations took place over the new line Nov. 7.

United States press despatches state that a system of wireless telephony has been successfully tested between the Brant Rock wireless telegraph station and a fishing vessel about 12 miles out in Massachusetts Bay.

The Bell Telephone Co.'s London, Ont., office has made an arrangement for a connection with the Mills telephone line operating between Thamesford and Evelyn, which gives that line the benefit of a long distance connection.

The Bell Telephone Co. gave a dinner to 90 of its district and local managers from the provinces of Quebec, Ontario and Manitoba, on the occasion of their annual convention at Montreal, Nov. 8. C. F. Sise, President of the company, was in the chair.

The Bell Telephone Co. is reported to have entered into contracts for the delivery of 83,000 poles at various points in Manitoba, Saskatchewan and Alberta, early in 1907. This number of poles represents the construction or reconstruction of about 2,500 miles of line.

THE Canadian Pacific Railway Company will apply to the Parliament of Canada, at its next session, for an Act extending its power to issue bonds in respect of its Toronto-Sudbury Branch to an amount not exceeding $35,000 per mile thereof.

CHARLES DRINKWATER, Secretary.

Montreal, 15th October, 1906

NOTICE is hereby given that an application will be made to the Parliament of Canada, at the next session thereof, for an Act to incorporate a company under the name of St. Léon Railway Company, with power to construct and operate a railway from a point on the Canadian Pacific Railway near Louisville, in the County of Maskinongé, northward to a point at or near St. Alexis, in the same county, passing by way of St. Léon, with power to construct branches from a point or points on such line to a point at or near Three Rivers, in the County of St. Maurice, and to a point at or near Lake Maskinongé, in the County of Berthier, and that the said works may be declared to be for the general advantage of Canada.

W. H. MOORE, For applicants.

Toronto, Ont., 6th November, 1906.

NOTICE is hereby given that The Canadian Northern Quebec Railway Company will apply to the Parliament of Canada, at its next session, for an Act authorizing the company to enter into agreements for any of the purposes mentioned in section 281 of The Railway Act, 1903, with The Canadian Northern Ontario Railway Company and The Canadian Northern Railway Company, or either of them, and to lease to the last named companies, or either of them, its lines or leased lines or any of them, and to give the said companies running powers thereover; and confirming an issue of 4% perpetual guaranteed debenture stock made by the company; and declaring the powers of the company with respect to the consolidation of the whole or portions of the issues of securities of the company, its predecessors or successors, and to the retirement by exchange or otherwise of outstanding securities, and to the preservation of the rights and priorities of securities retired in part; and extending the time for the commencement and completion of the company's authorized lines.

Z. A. LASH,

Chief solicitor for the said company,
No. 1 Toronto St., Toronto.

Dated 15th November, 1906.

NOTICE is hereby given that application will be made to the Parliament of Canada, at the next session thereof, for an Act amending the Acts relating to The Canadian Northern Ontario Railway Company (formerly the James Bay Railway Company), as follows:

Authorizing the construction of the following lines of railways:

(a) From Washago westerly to Lake Huron near Kincardine.

(b) From Arnprior southerly to St. Lawrence River between Kingston and Brockville.

(c) From Pembroke south-westerly to Lake Ontario between Toronto and Belleville.

(d) From Toronto-Ottawa line north-westerly to Georgian Bay near Collingwood or Owen Sound.

(e) From Toronto-Ottawa line westerly, passing through or near Toronto, Hamilton and London to Windsor, with branches to St. Thomas and Sarnia, and a branch or loop north of Toronto.

(f) From Niagara River north-westerly, passing through or near Hamilton to Lake Huron near Goderich.

(g) From Lake Erie west of Port Colborne, northerly passing through or near Brantford or Berlin to Georgian Bay.

(h) From a point near Washago to the Georgian Bay east of Collingwood.

(i) From Montreal-Ottawa line north of Montreal, westerly to connect with the authorized line in the County of Leeds or Lanark.

Also fixing and extending the time for commencement and completion of authorized lines, fixing the limit of securities which may be issued in respect of above lines at $30,000 per mile, and authorizing amalgamation or leasing agreements with The Canadian Northern Quebec Railway Company.

GERARD RUEL, Assistant Solicitor.

Toronto, 14th November, 1906.

NOTICE is hereby given that The Canadian Northern Railway Company will apply to the Parliament of Canada, at its next session, for an Act increasing the powers of the company with reference to the issue of bonds or other securities; and extending the time for the commencement and completion of the lines of railway referred to in section 4 of The Canadian Northern Act, 1905, and authorizing the construction of the following lines of railway:

(a) A branch from its line at or near Humbolt in the Province of Saskatchewan, in a south-westerly direction to Township 29, Range 7, West of the Third Meridian, thence westerly and south-westerly to the City of Calgary, in the Province of Alberta.

(b) A branch from a point in Township 29, Range 7, West of the Third Meridian, in a south-westerly direction to a point on the Qu'Appelle, Long Lake and Saskatchewan Railroad and Steamboat Company, between Craik and Bladworth.

(c) An extension of its line authorized by chapter 52 of the Statutes of Canada, 1901, section 5, sub-section (a), in a westerly direction to a point in Township 5, Range 15, West of the Second Meridian, thence in a north-westerly direction to Township 16, Range 27, West of the Second Meridian.

(d) A branch from a point on its line at or near Humbolt north-westerly to a point in Township 43, Range 26, West of the Second Meridian.

(e) A branch from a point on its railway at or near South Battleford in a westerly direction to a point in Township 44, Range 27, West of the Third Meridian.

(f) A branch from a point on its line at or near North Battleford in a north-westerly direction to a point in Township 59, Range 1, West of the Fourth Meridian.

(g) A branch from its line at Strathcona southerly to Calgary.

(h) A branch from Regina south-westerly to a point on the International boundary.

(i) From a point at or near Saskatoon south-westerly to a point on the South Saskatchewan River.

(j) From a point on its authorized line at or near Edmonton, thence by the most feasible route to a point on the Pacific Coast.

(k) From a point on its authorized line near the forks of the Athabasca and McLeod Rivers south-westerly to the head waters of the McLeod River.

(l) From Battleford westerly a distance of one hundred miles.

(m) A branch from the Canadian Northern Railway at or near Strathcona in a south-westerly direction to Pigeon Lake, Province of Alberta.

(n) A branch from a point on the Canadian Northern Railway south of Neepawa, Province of Manitoba, thence north-westerly, joining the main line at or near the crossing of the South Saskatchewan River

Z. A. LASH, Solicitor for the applicant.

Toronto, 15th November, 1906

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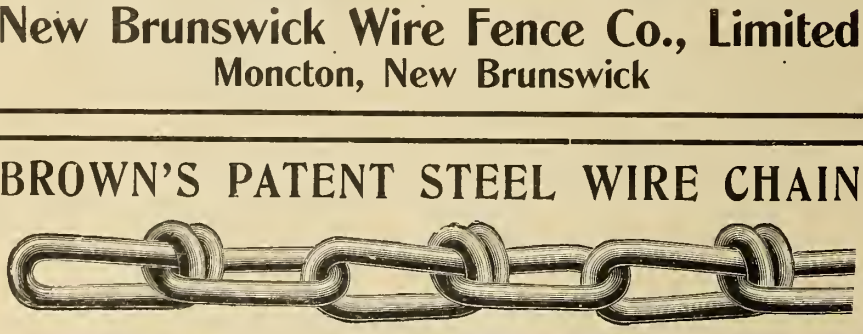

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General Passenger Agent, New York.

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General Agent, Pass. Department, Buffalo, N.Y.

The Temiskaming Telephone Co., New Liskeard, Ont., has about 350 instruments on its various lines, which have in all 250 miles of wire. About 200 instruments are in use in New Liskeard, and the lines extend to Haileybury and Cobalt, Ont., and Ville Marie, Que.

The Board of Railway Commissioners has issued an order extending for four months the time within which the Bell Telephone Co. has to submit its rates for approval, to comply with the amendment of the Railway Act passed last session of the Dominion Parliament.

There were 21 miles of long distance telephones in Manitoba and the Northwest Territories in 1887, which had been increased to 1,710 miles in 1903, and at the end of 1905 to 3,335 miles. It is estimated that at the end of the current year there will be 5,335 miles of long distance lines in the same territory.

The Bell Telephone Co. has extended its long distance lines in the Owen Sound, Ont., district recently. The last one completed is the Williamsford line to Dornoch, about midway between Chatsworth and Durham. Several other extensions are contemplated, but no further work will be undertaken until the spring.

The Melita-Arthur Telephone Co. is applying for supplemental powers under the Manitoba Companies' Acts, for the purpose of increasing its capital from $10,000 to $60,000, and authorizing it to extend its lines throughout Manitoba subject to the consent of, and on agreement with the council of any town, village or rural municipality.

The Thorold, Ont., Board of Trade has appointed a committee to investigate the cost of constructing a local telephone system, and to arrange, if possible, to join with St. Catharines, Merritton, Welland, Niagara Falls, Port Dalhousie, and other points in the Niagara district to combine and build a complete system.

In connection with the desire of the Manitoba Government that a definite opinion shall be expressed by voters at the forthcoming municipal elections upon the telephone question, meetings are being held at a large number of points at which F. Dagger, who has been appointed telephone expert by the Government, is the principal speaker.

The Bell Telephone Co. was granted a renewal of its franchise in Windsor, Ont., by resolution passed by the City Council, Nov. 5. The new franchise will run for five years, the company undertaking to place its wires in conduits along certain streets, to remove its poles from other streets, to provide the city offices with six free instruments, and to pay $750 a year during the currency of the agreement.

The Grand Manan Telephone Co., which was incorporated under the New Brunswick Companies' Act, in 1904, has been granted supplemental letters patent authorizing it to lay a telephone cable from the island of Grand Manan to the island of Campobello; to construct telephone lines on the island of Campobello; to connect its lines with those of other systems, and to increase its capital from $2,000 to $7,000.

The Union of Manitoba Municipalities discussed the telephone question at length at a meeting at Portage la Prairie, Nov. 8, and passed a resolution endorsing the Government position, and authorizing the appointment of a committee to confer with the Legislature as to the best method of putting the acts in force. The voting on the question, upon which the Government desires to have the opinion of the people, will be on Dec. 4.

The Moncton, N.B., Board of Trade objected to the increase in rates which it was

THE CANADIAN NORTHERN QUEBEC RAILWAY COMPANY.

NOTICE is hereby given by the Canadian Northern Quebec Railway Company that an application will be made to the Parliament of Canada at the next session thereof for an act extending the time for the construction of a branch line from a point on its main line between Montreal and Joliette to Rawdon, touching at St. Jacques, and authorizing the construction of an extension of such branch beyond Rawdon to a point at or near Lake Archambault, in the County of Montcalm.

W. H. MOORE, Secretary.

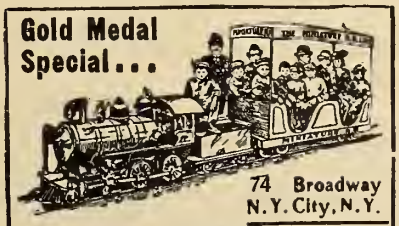
Toronto, Ont., Nov. 6, 1906.

NOTICE is hereby given that the Joliette and Brandon Railway Company will apply to the Parliament of Canada, at the next session thereof, for an Act declaring that the undertaking of the company is a work for the general advantage of Canada, approving a lease of the railway of the company to the Canadian Pacific Railway Company and authorizing the issue of bonds, debentures or other securities of the company, secured by mortgage upon the company's railways and undertaking, to an amount not exceeding $20,000.00 per mile of railway constructed or under contract to be constructed.

H. C. OSWALD,
Secretary, Joliette and Brandon Ry. Co.

Dated at Montreal, October 10, 1906.

Gold Medal Special...



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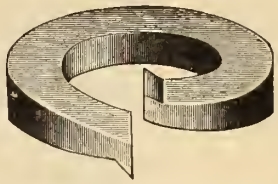

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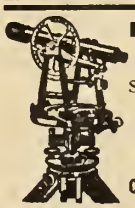

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NOTICE is hereby given that The Canadian Northern Railway Company will apply to the Parliament of Canada, at its next session, for an Act increasing the powers of the company with reference to the issue of bonds or other securities.

Z. A. LASH,
Chief solicitor for the applicant

Toronto, October 31, 1906.

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alleged the New Brunswick Telephone Co. was putting in force, and passed a resolution Nov. 8 urging the establishment of a local telephone system. A subsequent interview between the manager of the company and the President of the Board of Trade brought about an understanding by which there will be no alteration of rates, with a promise of an improved long distance service.

The New Brunswick Equity Court at Fredericton has reserved judgment in the action brought by the Cumberland Telephone Co. for an injunction restraining the amalgamation of the Central Telephone Co., and the New Brunswick Telephone Co. The Cumberland Telephone Co. has a ten years' contract with the Central Telephone Co. and it alleges that the amalgamation would interfere with its rights and privileges. It was stated on the other hand that the plaintiff's rights under the contract with the Central Telephone Co. were fully protected by the terms of the amalgamation.

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Canadian Bronze Co.....Montreal.
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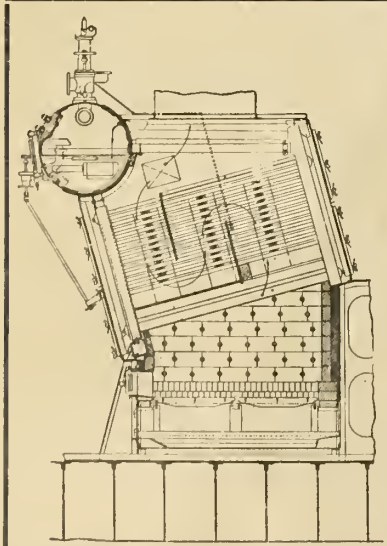

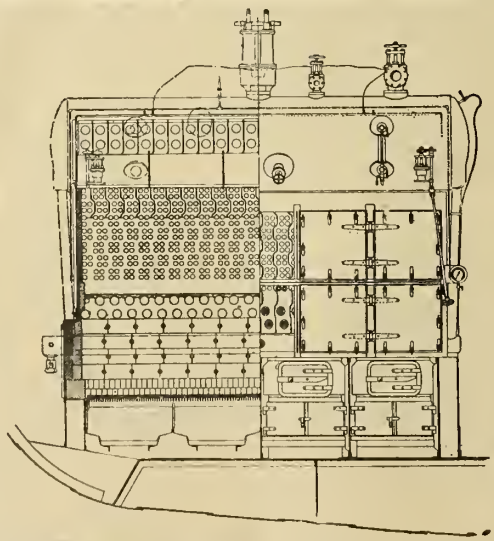

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